FOREIGN Commerce Weekly

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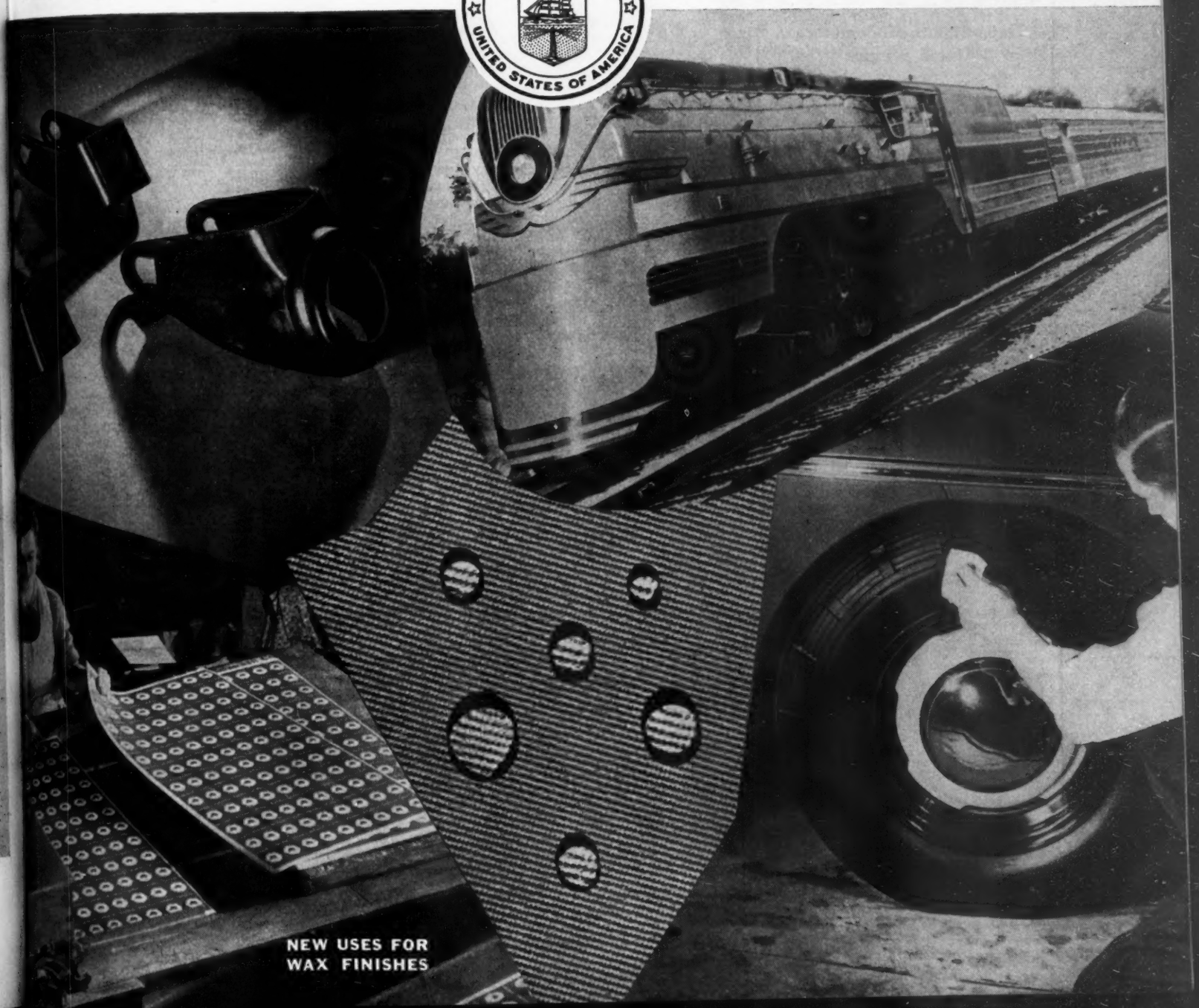

Foreign Commerce Weekly

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Issued by the UNITED STATES DEPARTMENT OF COMMERCE, JESSE H. JONES, *Secretary*

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SEP 8 '42

Chile's "WHITE GOLD" Stages a COMEBACK

By KARL FALK, *Department of Commerce*

WORLD WAR II is reviving the picturesque Chilean nitrate industry—first created by the Napoleonic Wars, to flourish through the last century to World War I when development of synthetic nitrogen processes threatened the natural industry with extinction. With urgent military needs now requiring the lion's share of the United States output of synthetic nitrogen products, the vast supplies of saltpeter—or natural sodium nitrate—of Chile are a boon to the war effort of the United Nations. Without them the American farmer could hardly carry out the Government's ambitious crop program of supplying food, vegetable oils, and fibers for the United States and its armed forces, as well as for its Allies.

Nitrogen Indispensable

Nitrogen is as indispensable for plant growth as for making powder and explosives. Although nitrogen constitutes almost four-fifths of the atmosphere, it has to be combined with some other element before it can be utilized. The oldest commercial source of fixed nitrogen for fertilizer, aside from manure, is Chile nitrate.

While Chile was still the world's chief source of nitrogen, the eminent British scientist, Sir William Crookes, in 1898 alarmed the world by warning that universal starvation would follow the exhaustion of the great sodium-nitrate beds of Chile. This dire prediction has become meaningless in the past 2 decades, with the large-scale development of synthetic nitrogen processes.

However, so that the domestic synthetic nitrogen production of the United States can now be used increasingly to make explosives and other industrial chemicals, Chile nitrate is assuming a more important role in this country as a fertilizer material.

Nitrogen and nitrates comprise 20 to 30 percent of the fertilizers applied in the United States either directly or in admixture with the other two essentials, phosphate and potash. Supplies of the latter materials are more plentiful than those of nitrogen. In fact, the nitrogen shortage will cause restrictions this fall and especially next spring in the use of nitrogenous fertilizers for all but the most urgent crop needs. The importance of the three principal fertilizers becomes apparent when it is realized that if it were not for their application 30,000,000 more acres would have to be put under cultivation to obtain this year's crop production in the United States.

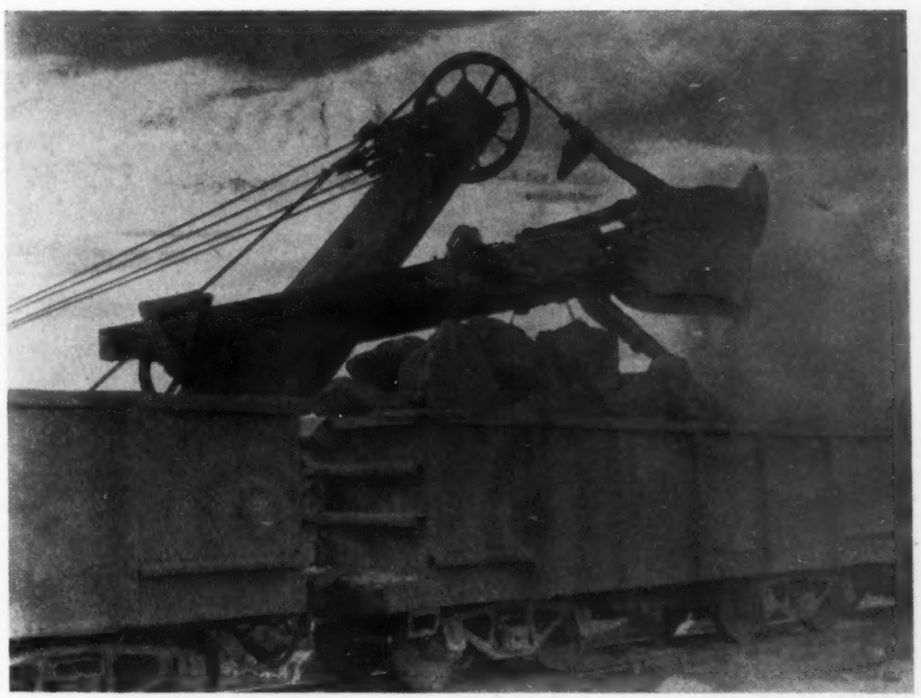
U. S. Needs Today

To supply the minimum nitrogen requirements of agriculture during the coming fertilizer year, the U. S. Department of Agriculture estimates that 400,000 tons must be made available. Part of this can be supplied from organic vegetable and animal byproducts, but the larger part will have to be inorganic chemical nitrogen. Normally, nearly one-half the nitrogen used in this country is produced synthetically by fixing the nitrogen of the air, about one-third is imported, and the remainder is obtained as a byproduct of the manufacture of coke.

Cut off from European suppliers, the United States is now largely dependent on Chile for imports of inorganic nitrogen materials—except for small shipments of calcium cyanamide from Canada. To obtain 200,000 tons of nitrogen equivalent, 1,200,000 tons of sodium nitrate would have to be imported. Although this would exceed prewar imports, much of the supplies formerly exported to Europe would now be available in Chile. The chief problem is one of transporting the material from South America to United States ports past enemy submarines lurking along shipping lanes.

That Men May Eat and Fight

Fiction could be written no more dramatically than the story of Chile nitrate. No one knows how or why it was so richly deposited in only one place in the world, on the high north Chilean deserts where not even a cactus can grow. Discovered in 1809 by a vagabond explorer who had been guided by Indians across the barren, rainless plateaus off the western slopes of the Andes, the vast nitrate beds which lay between Chile and Peru were in 1880 the subject of a fierce and bloody war between Chile, Peru, and Bolivia.



Electric shovel loads "caliche" (nitrate ore) on cars at the mine.

Realization of the value of these odd deposits came earlier in the century, however, when the nitrate hunger born of the increased demands for nitrates in Napoleonic wars had aroused great interest in their exploitation. Little did Napoleon know that he was indirectly responsible for founding a major industry—the mining and refining of "white gold"—in far-off Chile. The more important peacetime role of nitrate as an indispensable fertilizer material was as yet unknown.

As early as 1830—10 years before Justus von Liebig discovered that three elements, nitrogen, potassium, and phosphorus, are taken from the soil and must be replaced if fertility is to be maintained—commercial exploitation of the vast nitrate deposits had already begun. When it was learned that one of the three elements, nitrogen, could be best obtained in the form of saltpeter, or literally "stone salt," the prosperity of the Chilean industry, as well as ample food supplies for Europe, seemed assured.

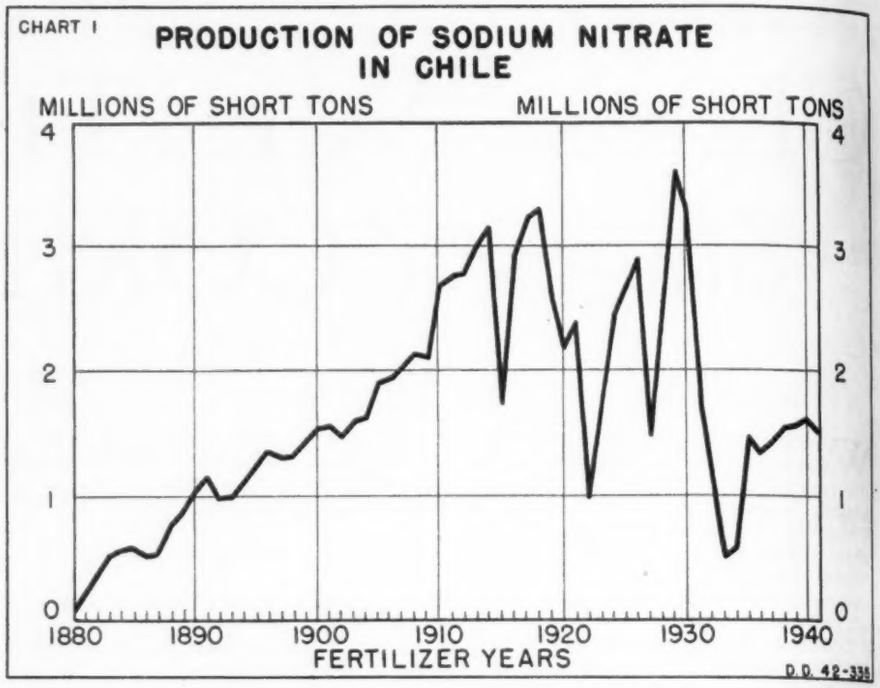
Land Fertility Reduced

In western Europe centuries of intensive cultivation had depleted soils severely, and crop yields were becoming alarmingly low as a source of food supply for the fast-growing population surrounding new industries.

The reduction in land fertility becomes apparent when it is realized that a crop of 25 bushels of wheat may take away (in grain and straw) over 50 pounds of nitrogen, over 15 pounds of phosporus, and over 20 pounds of potash from 1 acre.

In 1831 the first shipment of 110 tons of sodium nitrate, costing $108 a ton, was made to England. The same year some Chile nitrate was also shipped to the United States, which at that time could still turn west to find fertile untouched prairies. However, as early as the 1800's when the trek to new virgin soils became impractical, it was necessary to fertilize such staple crops as cotton, corn, and tobacco, which took a heavy toll from the soil. In 1856 20,000 tons of commercial fertilizer was prepared in the United States; partly from nitrate brought from Chile to the United States in swift-sailing vessels.

CHART I



Struggle and Advance

Until 1881, when Chile acquired, after the War of the Pacific, complete control of the rich nitrate-bearing fields, the growth of the industry was spasmodic. In 1884 the so-called Shanks refining process was introduced and continued to be the sole method of extracting sodium nitrate from crude caliche ores until 1924, when the modern mechanized Guggenheim process was developed.

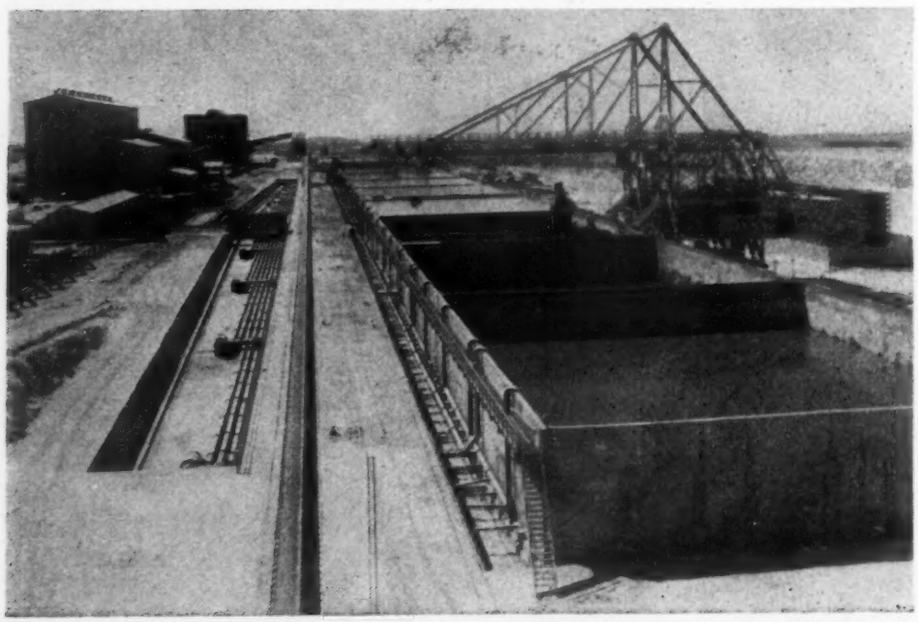
From the 1880's to World War I the industry enjoyed a steady growth, since it was the world's leading source of nitrogen. This was a period of lush prosperity for Chile and for foreign investors in Chile's "white gold" industry. Prior to World War I Chile exported 56,000,000 tons of nitrate to all parts of the world, and from 1914 to 1941 another 56,000,000 tons.

Through a tax placed on nitrate exports the Chilean Government collected nearly $1,000,000,000 (7,980,749,854 Chilean pesos) in revenue in the half century from 1880 to 1930. The tax supplied an average of 42.8 percent of the total revenue of the Chilean Government, reaching a maximum of 67.9 percent in 1894. Thus, at the outbreak of the war, Chile and its nitrate industry seemed to be in a very favorable position.

Far from the European battlefront, the Chilean nitrate industry played a spectacular role in World War I. Paradoxically, the very reason for the industry's birth a century earlier—the demand for nitrates for war—ushered in its decline after World War I. Undoubtedly, the most sensational chemical development of the war period was the growth, especially in Europe, of the synthetic nitrogen industry which ended Chile's monopoly as well as the specter of possible human starvation from lack of nitrogenous plant food.

Haber, Bosch, World War I

Of foremost importance in the manufacture of explosives is nitric acid. Smokeless powder consists chiefly of nitrocellulose—cotton or wood pulp treated with nitric acid. Trinitrotoluol (TNT) is made by treating toluene, made from coal tar or petroleum with nitric acid. Nitric acid is needed to make nitroglyc-



Leaching tanks. The "caliche" is crushed and placed in tanks where the soluble nitrate is leached.

Mining Chilean nitrate. Electric shovel and dragline operating in ore body.

erin, ammonium nitrate, and other ingredients of explosives, to say nothing of a wide variety of industrial products. Traditionally, nitric acid had been made from Chile nitrate by the retort process.

For a number of years scientists had wrestled with the problem of getting enough hydrogen to combine with stubborn and inert nitrogen of the air to make ammonia. Finally Fritz Haber and Carl Bosch succeeded, and from 1911 to 1913 developed a commercial process for making synthetic ammonia. When Wilhelm Ostwald discovered how to convert this synthetic ammonia into nitric acid by means of oxidation, Germany felt independent of Chile nitrate. Armed with these two processes, that country dared risk a blockade, and in 1914 translated saber rattling into action. To be sure, as a safeguard, Germany had imported 850,000 tons of Chile nitrate in 1913, and had amassed a stock pile of 500,000 tons in August 1914.

TABLE 1.—*World Production of Inorganic Nitrogen*

[Nitrogen content, tons of 2,000 pounds] [1]

Year [2]	Chilean nitrate	Percent	Synthetic forms	Percent	Byproduct	Percent	Total
1910	420,964	64.3	8,816	1.4	224,808	34.3	654,588
1911	430,882	62.3	18,734	2.7	242,440	35.0	692,056
1912	441,902	59.3	33,060	4.4	269,990	36.3	744,952
1913	473,860	57.6	59,508	7.2	289,826	35.2	823,194
1914	420,964	55.0	77,140	10.1	267,786	34.9	765,890
1915	299,744	36.0	225,910	27.2	306,356	36.8	832,010
1916	497,002	44.1	288,724	25.6	341,620	30.3	1,127,346
1917	512,430	41.0	373,578	29.9	364,762	29.1	1,250,770
1918	489,288	37.2	458,432	34.9	365,864	27.9	1,313,584
1919	286,520	32.6	282,112	32.2	308,560	35.2	877,192
1920	430,882	33.6	463,942	36.2	387,904	30.2	1,282,728
1921	224,808	31.3	156,484	21.8	336,110	46.9	717,402
1922	182,932	23.3	343,824	43.8	257,868	32.9	784,624
1923	325,090	31.1	546,592	52.4	171,912	26.5	1,043,594
1923–24	379,088	32.4	445,428	38.0	346,910	29.6	1,171,426
1924–25	411,597	32.2	508,132	39.7	358,921	28.1	1,278,650
1925–26	447,412	30.3	650,070	44.0	379,529	25.7	1,477,011
1926–27	225,028	16.0	765,229	54.8	408,291	29.2	1,398,548
1927–28	435,180	22.8	1,005,024	52.8	465,044	24.4	1,905,248
1928–29	560,257	23.9	1,317,992	56.1	470,554	20.0	2,348,803
1929–30	512,430	21.1	1,392,596	57.3	524,332	21.6	2,429,358
1930–31	271,863	14.6	1,161,288	62.3	430,331	23.1	1,863,482
1931–32	186,569	10.7	1,194,017	68.4	365,533	20.9	1,746,119
1932–33	78,022	4.2	1,442,298	78.1	327,625	17.7	1,847,945
1933–34	92,568	4.7	1,488,361	75.6	386,802	19.7	1,967,731
1934–35	196,725	8.6	1,680,550	73.7	403,332	17.7	2,280,607
1935–36	211,504	8.1	1,957,152	74.7	451,820	17.2	2,620,476
1936–37	226,253	7.9	2,138,982	74.8	492,594	17.3	2,857,829
1937–38	247,398	7.9	2,352,770	74.9	541,082	17.2	3,141,250
1938–39 [3]	249,000						
1939–40 [3]	260,000						
1940–41 [3]	242,000						

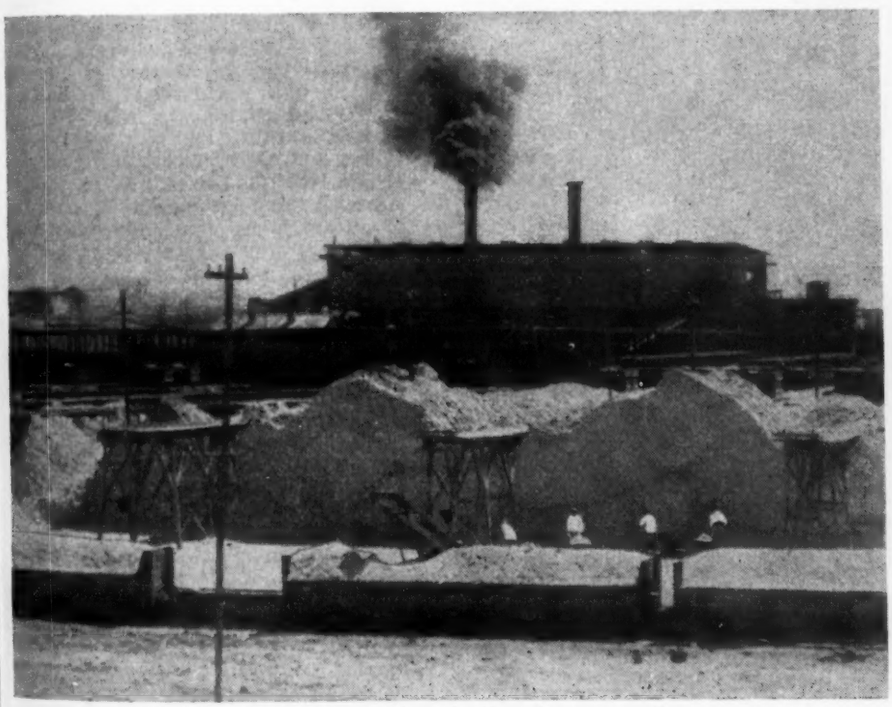
[1] Nitrogen content of sodium nitrate approximately 16 percent.
[2] Source: "Boletín Minero," Sociedad Nacional de Minería, August 1938, for years 1910 to 1938, inclusive.
[3] Figures from Chile Nitrate and Iodine Sales Corp. annual reports.

Spectacular "Tug of War"

A tug of war to control Chile's supply of natural nitrate began immediately between the Central and Allied Powers in 1914. The German Pacific squadron under Admiral von Spee won the first round when it defeated the British at the Battle of Coronel just off the Chilean coast, in November 1914. The British won the final decision, however, when the same German squadron was destroyed December 1914 at the Falkland Islands off the tip of South America.

Exactly a quarter of a century later, in December 1939, the Nazi pocket battleship *Graf Spee*, named in honor of the same commander, also met its doom in South American waters when it was scuttled at Montevideo after losing a running battle with the British.

The Battle of the Falkland Islands in 1914 ended Germany's ability to obtain nitrate shipments from Chile or to interfere with shipments to Allied countries. Although submarines and raiders later proved menacing at times, British



Nitrate "oficina" (refining plant), with storage piles.

White trainload of Chile nitrate on way to seaport.

cruisers were generally able to keep sea lanes open, and the supplies thus obtained were distributed to the Allies through a pool formed in London.

Germany's Feverish Efforts

Cut off from Chile, Germany was now thrown entirely on its own synthetic production. The Oppau plant had the capacity to produce 7,000 tons of nitrogen in 1913. A swift, short war was the plan of the German General Staff. When French lines held, imperial strategy was upset. Germany feverishly expanded the plant at Oppau and broke the ground for the new plant at Leuna, near Merseburg, which has since become by far the world's largest nitrogen plant, and incidentally the prize target of R. A. F. air raids in World War II. The extension took time, and, if the Germans had not been tided over by the capture of large amounts of Chile nitrate of soda in Antwerp in 1915, the expansion of German nitrogen production would have been too late and might have hastened the defeat of Germany.

By the end of the war, in spite of defeat, Germany was left with the largest fixed-nitrogen producing capacity in the world, which was now turned to making fertilizers. Similar industries had sprung up in other countries, and, with the sudden cessation of war demands, there was more nitrogen than the world knew what to do with.

One fact was only too apparent—Chile had irretrievably lost its favored position as the leading supplier of the world's nitrogen. Charts 1 and 2 in this article show the ups and downs of Chile nitrate production and the relative decline in Chile's share of total world nitrogen production.

Vicissitudes in Chile

Plainly enough, Chilean industry whose expansion had been steady from 1880 to 1913 faced an uncertain future once the war of 1914–18 broke out. Production dropped sharply during the early years of that war when exports to the Central Powers were shut-off and German raiders harassed Allied shipments. This was followed toward the end of the war by a rise which had resulted from increased Allied requirements. Following a sharp dip in the post-war crisis of 1921, production reached an all-time peak in 1929—only to plunge during the depression to new depths, from which it has only partially recovered in the meantime.

The 1929 production record was 3,564,000 short tons of sodium nitrate, which was 8 percent higher than the previous peak in 1917. However, by 1933 Chile's output dropped sharply to 484,000 tons, and recovered to 909,000 tons in 1934. Since 1938, production has remained fairly constant, around 1,500,000 tons a year.

Loading nitrate on cars at refining plant.

"Synthetic" in Spotlight

Between World War I and World War II, successful development of the Haber-Bosch synthetic process—with modifications known as the Claude, Casale, Fauser, Mont-Cenis, and Nitrogen Engineering Corporation processes—resulted in the construction of large synthetic nitrogen plants in Germany, the Netherlands, Belgium, France, Italy, Great Britain, Norway, Czecho-Slovakia, Japan, the Soviet Union, and the United States. In the United States a large, but inadequate, production of synthetic nitrogen compounds was undertaken after the war.

Ammonium sulfate, produced from the operations of byproduct coke ovens, had long provided this important nitrogen-bearing fertilizer. Added to this were the synthetic ammonia processes, which provided the chemist with one of the most convenient sources of nitrogen. Even synthetic sodium nitrate was made by treating soda ash with nitric acid, now made almost entirely from synthetic ammonia. The United States had also become the world's leading exporter of synthetic sodium nitrate.

In order to avoid a ruinous price war with the synthetic-nitrogen-producing countries, Chile, in the summer of 1929, joined an international cartel in which agreements were reached regarding the production and marketing of nitrogen compounds in world markets other than the United States. In 1929, German, British, and Chilean producers entering into the agreement accounted for approximately 70 percent of the world's nitrogen production. Other European producers joined later, but the United States and Japan were never members.

Palliatives Tried

Chile belonged intermittently (as the only non-European member) to this cartel from its inception in 1929 to its dissolution in August 1939—significantly, the month before World War II broke out. The cartel had been designed to stabilize output, sales, and prices, and, through it, Chile was assigned quotas in world markets.

This was only a palliative, not a cure, for the ups and downs in Chile's nitrate trade and in the fortunes of its national economy. In other countries, Government subsidies, national tariff and trade barriers, autarchy and war programs all helped to build up domestic synthetic industries. The striving of each country

for nitrogen independence as well as the economies of synthetic production, and Chile's great distance from world markets, combined to push the natural sodium-nitrate industry into the background.

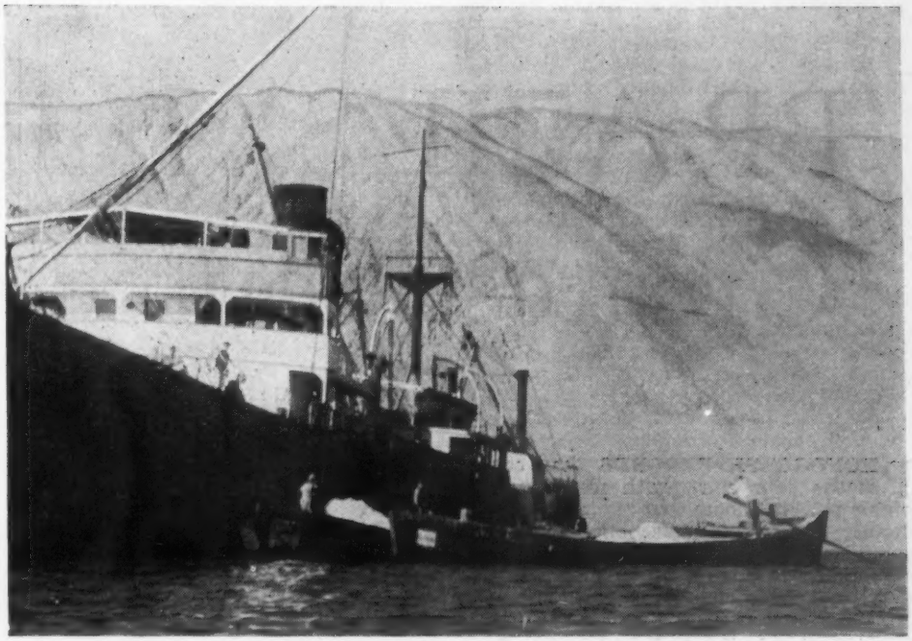
The growth of synthetic production is reflected in chart 2, based on Chilean figures (table 1) of the world production of inorganic nitrogen according to forms. From this it can be seen that Chile supplied 57.6 percent of the world's nitrogen in 1913 at the outbreak of World War I. At the lowest point of the depression, in 1932, it furnished only 4.2 percent, and in 1938 on the eve of World War II it accounted for only 7.9 percent of the world's nitrogen output.

That Other Lands May Bloom

Profound changes such as these cannot help but leave their mark on Chileans and their economy. A drop in production and exports of sodium nitrate, known locally as "white gold" because of its color and importance, means a shrinkage of the Government's income, roughly half of which comes from the nitrate industry. Although only about 50,000 Chileans are directly engaged in mining and recovery operations, about a tenth of the country's population depends, either directly or indirectly, on the sodium-nitrate industry for a living.

To make the most barren spot on earth yield a product that makes other areas fruitful is no small job. It has taken much engineering skill, courage, and money to develop the industry, and the United States can take credit for a major share in the industry's developments, especially in recent years.

On a narrow plateau in north Chile between the Andes and the coast ranges for hundreds of miles there is not a sign of vegetation, nothing but crusty sand, bare rocky hills, and mirages of nonexistent lagoons. These are the nitrate pampas. Inland from the shipping ports of Tocopilla, Iquique, Antofagasta, and Taltal, at elevations ranging from 4,000 to 7,500 feet above sea level, lie the chief producing fields. There the deposits are located in an irregularly shaped area roughly 450 miles long and from 5 to 40 miles wide.



Vessel at Chilean port taking aboard a cargo of nitrate.

How the deposits got here is a riddle. Some think they were formed from accumulations of decomposed excrements of vicunas, llamas, or their carcasses, like Peruvian "guano." Others insist, in view of the presence of iodine, that they were old meadows of sea grass collected on the eastern shores of a prehistoric inland sea which later drained out into the Pacific Ocean. Still others attribute the deposits to the oxidation of atmospheric nitrogen to nitric acid during violent electrical storms in the Andes, to nitrogenous fumes from volcanoes, and to the fixation of atmospheric nitrogen by alkali carbonates in the presence of oxidizable matter. These are only a few of the theories which have furnished many a scientific and speculative argument, but none of them gives an entirely satisfactory explanation of all the conditions associated with the deposits.

Sodium nitrate, or Chile saltpeter, literally "stone salt," because it exudes from rocks, actually is found intermingled with sand, gravel, and clay, and the richer material called "caliche" occurs in flat layers near the surface. These are generally covered with 1 to 10 feet of sandy overburden or "chuca," which first has to be stripped to uncover the caliche layers which range from a few inches to several feet in thickness.

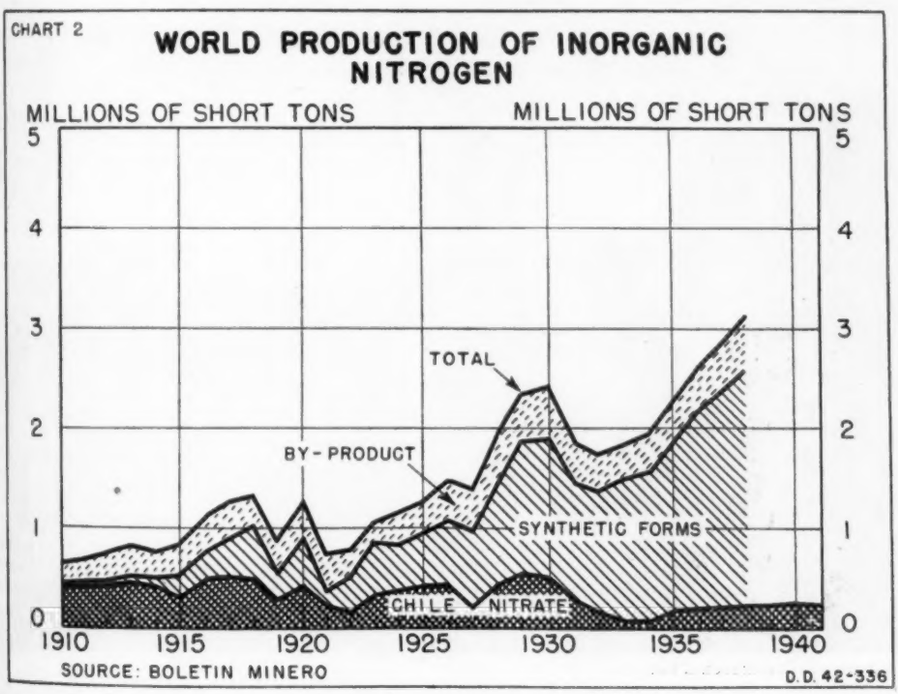
Potassium nitrate, sodium chloride (table salt), and sodium sulfate (salt cake), as well as sodium iodate and a number of minor compounds of boron, calcium, chlorine, sulfur, lithium, and strontium are also found along with the sodium-nitrate deposits. A small amount of ores of high potassium-nitrate content are marketed as a combination sodium-potassium nitrate. Iodine is the most valuable byproduct recovered, and defrays part of the expenses of producing the nitrates. In fact, Chile has accounted for around 90 percent of the world's iodine production in recent years.

By Hand and by Machine

Hand mining is employed to furnish ores for the old-style Shanks refineries, which still account for 35 percent of Chilean production. Specialists drill test pits to determine the richness of the

(Continued on p. 30)

CHART 2



BRAZIL'S "*Tree of Life*": Greatest Source of Wax

By WILLIAM N. SMALL, *Department of Commerce*

PHONOGRAPH RECORDS that can soothe your spirit with music, and highly polished floors that can ruffle your dignity with a fall, have one thing in common—carnauba wax. Having the appearance of a layer of dust, carnauba wax is a coating that forms on the leaves of one of the many palms that Brazil produces in endless variety and profusion.

Baron von Humboldt, in writing of a voyage to South America, made at the turn of the nineteenth century, called the carnauba palm the "tree of life." This, to the "sertanejo," who inhabits the flat, semiarid inland region, or "sertão," of northeastern Brazil, is no misnomer, for, when occasion has demanded, the various parts of this tree have served him as food, drink, heat, light, shelter, and clothing.

New Uses, Mounting Demand

For decades, carnauba wax has been an article of commerce; and in recent years, with the discovery of new uses and increased demand, exports from Brazil have mounted. Having three times the viscosity of beeswax, and possessing other exceptional qualities, carnauba has a wide variety of industrial applications, and in a number of uses is without an equal. No other wax is imported in such quantity into the United States.

"Carnauba" is said to be a corruption of the native Tupi word, "carnahyba," compounded from "caranda," meaning scaly, thick-skinned, asperous, and "yba," meaning tree or palm. An interesting derivation, and certainly descriptive.

Characteristics of Tree

Classified botanically as *Copernicia* (or *Copernica*) *cerifera*, the carnauba tree is a graceful, straight-trunked palm of slow growth. The average height is between 25 and 35 feet, and even after 50 years it seldom reaches a height of more than 40 or 50 feet. Its bark, especially on the lower part of the trunk, is rough, scaly, and thick.

The wide, serried, fan-shaped leaves grow from yard-long stalks, which issue in all directions from the crown of the tree, giving a distinctive pinwheel appearance. Carnauba flowers are very small and numerous; and the fruit, ovaloid and about an inch long, grow in

Courtesy S. C. Johnson & Son, Inc.

Uncut carnauba palm.

Courtesy S. C. Johnson & Son, Inc.

Brazilians loading dried carnauba-palm leaves on burro's back.

bunches which are greenish when young. When ripe, they have a rust color and drop to the ground.

Commercial importance of the tree lies in the wax, which is exuded from the pores of the leaves and leaf-stalk, or petiole. The wax covers the leaves in the dry season and prevents the excessive evaporation of water that soon reduces surrounding vegetation to a dingy gray.

From July to December in northeastern Brazil, during the period of inexorable sunshine, little else besides the thick-leaved, widespreading oiticica and the slender, fan-topped carnauba remains green. In drought years when rain fails even in the normal rainy season, the amount of wax increases materially for a time. If the drought is too prolonged, the tree is likely to tire and may even die after 2 or 3 years.

Two Species

It is now generally accepted that there are two species of this palm, only one of which produces wax. The one yielding no wax, *Copernicia caranda*, grows in the States of Amazonas and Matto Grosso, as well as in Bolivia, Paraguay, and Argentina. Even *Copernicia cerifera*, the wax bearer, however, does not yield appreciable quantities of wax outside the semiarid northeastern area of Brazil. The tree has been transplanted to Ceylon and French Equatorial Africa, but, although it has flourished there for many years, it has not produced any recoverable wax.

The wax-yielding carnauba is indigenous to a large area extending from the Amazon to the State of Bahia, including from north to south the States of Maranhao, Piauhy, Ceara, Rio Grande do Norte, Parahyba, Pernambuco, Alagoas, Sergipe, and Bahia. It is often found in groves close to the principal river valleys.

Principal Habitat

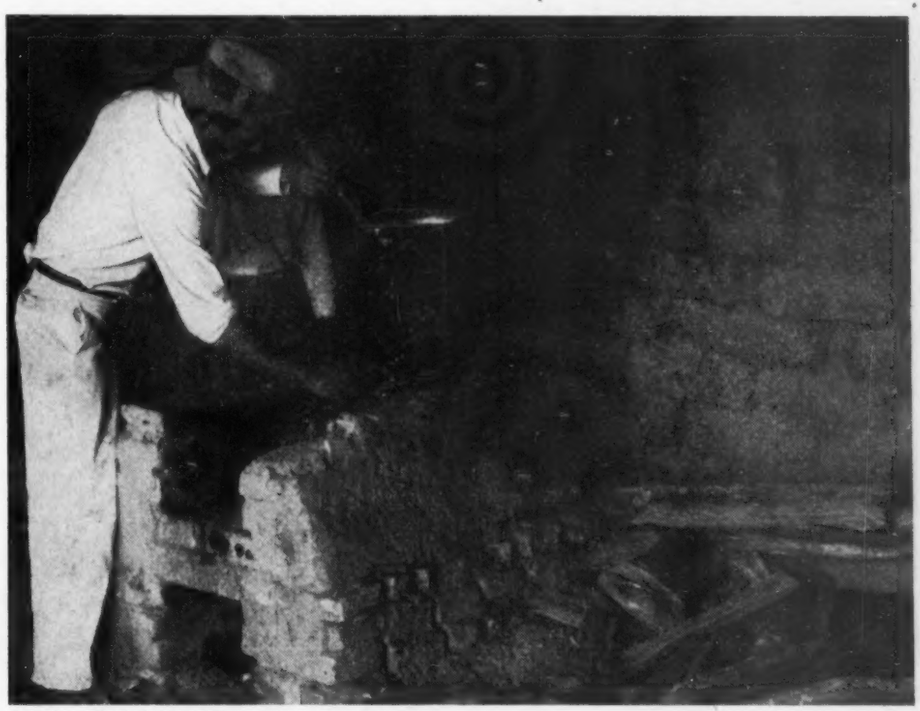
Millions of trees grow in Maranhao. In Piauhy, the carnauba is found on the coast and in the valley of the Parahyba. Along the rivers in the northeast area of Brazil is the principal habitat of the carnauba—the valleys of the Jaguaribe, Acaraçu, and Camocin Rivers in Ceara; the Assu, Mossoro, and Upanema, in Rio Grande do Norte; the Peixe and Piranhas in Parahyba; and the Sao Francisco in Pernambuco and Bahia.

Throughout this region large stands of carnauba occur, but nature has favored some areas over others. In accessibility of stands, and climatic conditions that stimulate the secretion of wax, Ceara and Piauhy, each of which produces 40 to 45 percent of the total output of wax, appear to be especially blessed. Rio Grande do Norte and Maranhao are next in line. As Maranhao approaches the Amazon forest region, and the climate becomes more humid, exudation of wax on the carnauba palm decreases, so, despite its large number of trees, Maranhao's production does not compare with that of Ceara or Piauhy.

Geographic distribution of the carnauba is extensive, but similar weather conditions usually prevail in the chief producing areas. As a result, production may show considerable variation from year to year, declining, for example, when rains are heavy during the normally dry season.

Manifold Usefulness

To most of the world, wax and the carnauba tree are synonymous, but in the carnauba country the wax represents only a fraction of the palm's usefulness. Lumber from this tree performs a number of duties. In rural construction it is used for frames, beams, walls, floors, pillars, and shingles. It makes durable furniture, and takes a fine polish.



Courtesy S. C. Johnson & Son, Inc.

After the wax powder has been beaten from the leaves, it is melted over an open fire in any sort of available container.

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Particularly resistant to salt water, it makes excellent pilings. Almost impervious to insects, it is used for fences and bridges. The wood from the lower part of the trunk is too hard to be burned in the home, but, since it burns with an intense heat in a hearth, it makes a first-class industrial fuel. For home fires the bark is good.

The inferior leaves may be used for thatch roofs, also for making ropes, coarse hats, mats, sacks, and other coarse-woven material. By carding, a suitable mattress stuffing is obtained. The better-grade leaves are used for hampers, baskets, and finer hats. The making of hats from carnauba fibers, as a matter of fact, is an important industry in Ceara, and the hats, similar to panamas, are shipped to all parts of Brazil. By spinning the long silky and resistant fibers, fine ropes and nets can be made.

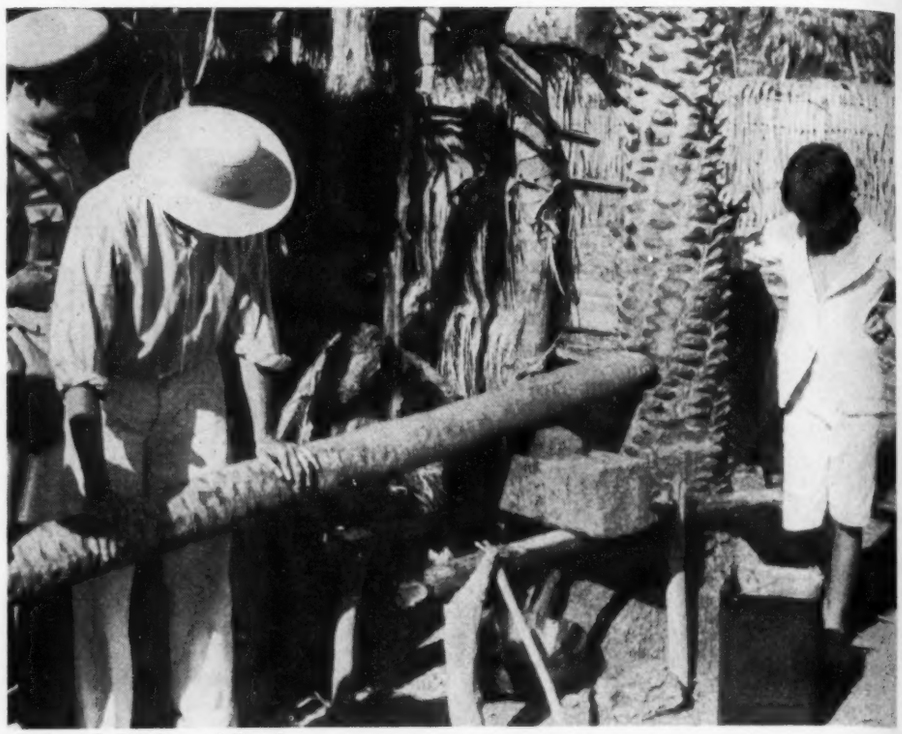
From the sap, a tapioca and a fermented beverage can be produced. Often, the young shoots are used as palmito cabbage. In times of scarcity, a starch, resembling manioc flour, may be made from the hearts of young carnauba plants. The dried fruit may be crushed to produce a cooking oil; and from the roasted and ground fruit, a coffeelike drink may be brewed.

A preparation, said to be similar to sarsaparilla, can be extracted from the roots and is used medicinally. When other fodder is not available, the stalks, young saplings, and residue may be fed to cattle.

The wax, from early times, has been used for candles. Mixed with a small amount of animal tallow, the candle gives useful service. Use of the carnauba-wax candle in Brazil was formerly widespread, but has been largely displaced outside the carnauba area by the oil lamp and electricity.

Industrial Uses in U. S.

To detail all industrial uses of carnauba wax in the United States would be a lengthy and perhaps impossible task. Some of the principal applications may be outlined. Most familiar to the average person is its use as a base for shoe, floor, and furniture polishes and waxes. Phonograph records contain carnauba. In various compositions, it may be used for electric insulators, for waterproofing wrapping paper, cardboard, and textiles. Quantities of it are used in the manufacture of soap and of sound film. It is employed in the manufacturing processes of lubricating oils. Carbon paper when coated with it yields cleaner, more legible copies. Those luscious-appearing but artificial bananas, grapes, and oranges displayed invitingly in homes and show windows are likely to contain a percentage of it.



Courtesy S. C. Johnson & Son, Inc.

Ingenious Brazilian filter press used in filtering dirt from molten carnauba wax.

Carnauba has pharmaceutical value in certain salves and ointments, and is the chief ingredient in the sealing material of dry-cell batteries. In World War I it was employed in the manufacture of picric acid. A recent development is its use in paint to give a waxy surface on which dust does not easily cling.

Seminomadic "Moradores"

The carnauba havesting period coincides with the dry season, for with the advent of the rainy season exudation of wax is restricted. Normally, the period extends from August or September through December or January. When winter rains are delayed, gathering of the wax may continue into February or later.

A proprietor of land on which carnauba palms grow arranges for the harvest, as a rule, in one of three ways. In the first and most commonly practiced method, he rents the stands of trees to "moradores," a class of seminomadic cattle raisers who drive their herds about the country to obtain pasturage and water, and who squat on the property of settled farmers during the harvesting periods for cotton, carnauba, and other crops. The number of trees and prospective yield are the factors which determine the amount of rental the "morador" offers. Usually the wax is sold back to the proprietor, who, as often as not, is a small trader.

In the second method, the proprietor merely hires laborers or contracts "moradores" to harvest the wax and melt it for shipment. In the third, or partnership arrangement, the proprietor, on condition that the "moradores" assist in the harvest, permits them to squat for

(Continued on p. 27)

Courtesy S. C. Johnson & Son, Inc.

American-owned experimental carnauba plant, Raposa, Brazil.

URUGUAY'S Motion Picture Business

By NATHAN D. GOLDEN, *Department of Commerce*

URUGUAY is definitely in the spotlight today when World War II has come to the east coast of the South American continent. Any factor that bears intimately on the life, tendencies, and aspirations of the nearly 2,250,000 people in that Republic commands more than usual interest at the present moment. Such a factor in Uruguay, as elsewhere in the modern world, is the motion-picture business—an activity embodying not only the customary elements of foreign commerce but also (and outstandingly) the psychological forces that help to shape thought and action in many fields. What is the motion-picture situation in Uruguay now, particularly as regards the films originating in the United States? The following article states, briefly, the salient facts about conditions:

Effect of World War II

Films from Great Britain, France, and the Soviet Union are still imported into Uruguay. The French and Soviet films are those which have been printed, often with new names, from older films already existent in the United States and in Argentina—and some of them are *very* old. It is expected, however, that a group of new Soviet films will be shown in the near future in Montevideo, the capital.

The United States accounts for between 75 and 80 percent of the feature films shown in Uruguay, and this percentage has hardly changed since the beginning of the war.

German and Italian films never comprised more than 5 percent of the total, and their place today has been filled by an increase in the number of Argentinean and Soviet films. No Axis films have been shown in Uruguay since December 1941.

Emergency Regulations

There are no quota laws in effect in Uruguay, and no legislation is in effect that would hamper or reduce the showing of films from the United States—nor is any known to be under consideration. Neither do any laws exist that require a percentage of Uruguayan films to be shown on any theater program, and no laws are in effect that prohibit foreign exchange.

The only laws or regulations in Uruguay which relate especially to the motion-picture industry are those which now aim to conserve electric power. These emergency regulations have been in effect during the past 3 months, and they provide for the closing of theaters at 11:30 p. m. on weekdays and at midnight on Saturdays, Sundays, and holidays.

These regulations further restrict the amount of illumination on the outside of the theater during its operation.

Child Welfare Considered

There is no censorship in Uruguay. But, under the "Codigo del Niño," all feature films are reviewed by a committee from the "Consejo del Niño," an independent governmental entity devoted to child welfare. The committee is guided somewhat by the Catholic League of Decency of the United States. Each film is pronounced either "apt" or "not apt," and in the latter case it cannot be shown without prominent display of signs and program notices which so signalize it, in order to warn minors (children under 10). Motion-picture films have been cut through the request of foreign diplomats—in the latest case the German Legation—though no such case has arisen in either 1941 or 1942.

There is considerable discussion of censorship, and from time to time new bills are introduced, but none has yet been passed.

No films have been rejected by the Uruguayan Government, but the owners or operators of theaters have refused to show three or four foreign films during the past few years. One such case concerned a French "short" which was considered too "risqué"; another, a German "short" which, it was feared, might unduly excite the anti-Axis sentiments of the Uruguayans (which have been clearly manifested ever since the Axis was formed), a third, an Argentinean "short."

Uruguay has no censorship agreement with other countries, and educational films are passed upon, before being shown, by the educational institution which is responsible.

Competition Faced by U. S. Films

Of the feature films imported into Uruguay approximately 80 percent come from the United States, 15 percent from Argentina, and 5 percent are divided between Great Britain, the Soviet Union, and France. During the year 1941 about 40 French films were shown and 4 or 5 Soviet films. Ninety-five percent of "short subjects" came from the United States and the others from Argentina. The United States furnished 75 percent of the news reels, with the remainder equally divided between Argentina and Great Britain.

In the capital, Montevideo, there is a definite preference for films from the United States, especially news reels and features. Second-class or inferior films from the United States are not preferred over Argentinean films of corresponding quality. In the rest of the Republic there is a preference for the Spanish-speaking Argentinean films.

Approximately 500 feature films are needed annually to supply the Uruguayan market; in addition, about 10 serials and 1,250 "short subjects," divided equally among the six news-reel houses of Montevideo, which show a new "short subject" each week. For the vast majority of features in distribution, only one print is needed, and in no case more than two prints.

Since copyrighting is slow, expensive, and relatively unnecessary in Uruguay, it is not practiced except for the copyrighting of trade-marks.

Production Activity Slight

The facilities for the production of motion pictures in Uruguay are very poor. Investment in production is extremely small, and carried on by individuals; at present no production company is operating in the country. No motion pictures were produced in 1942 or 1941. One motion picture was produced in 1940, one in 1939, and two in 1938.

An occasional news-reel film is made in Uruguay, covering athletic games, parades, etc. The Ministry of Transport has produced two or three educational films designed to demonstrate to pedestrians the dangers of crossing streets and roads in an improper manner.

Motion pictures using the Spanish language are preferred by the Uruguayan public except in the leading theaters of Montevideo, where English-speaking films are preferred. If well made, Spanish-speaking films, comparable to the quality of the best American films, would be preferred everywhere. Films "dubbed" into the Spanish language are considered objectionable.

(Continued on p. 34)

News by COUNTRIES

Argentina

Exchange and Finance

Budgets for 1942 and 1943.—The budget estimates for 1942 (adjusted) and 1943, recently submitted to Congress, were as follows (millions of pesos):

Revenues	1942	1943
Collections:		
Customs	215	215
Internal taxes	187	190
Land taxes	32	33
Income taxes	161	178
Sales taxes	42	42
Stamp taxes	70	74
Post and telegraphs	45	45
Exchange profits	21	21
Inheritance taxes	23	26
Miscellaneous	168	190
Total	964	1,014
Bond issues	24	26
Total	988	1,040

Expenditures	1942	1943
To be covered by collections:		
Interior	138	138
Finance	41	41
Public instruction	130	133
National Education Board	142	143
War and National Police	152	152
Navy	85	85
Agriculture	31	31
Public works	33	33
Pensions	82	85
Social welfare	48	47
Public debt	289	322
Other	18	18
Total	1,189	1,228
War Department mobilization	54	
	1,243	1,228
Less economies	50	50
	1,193	1,178
To be covered by bond issues	24	26
Total	1,217	1,204

Australia

Transport and Communication

Perth-Kojonup Road-Transport Service.—A new phase in the transport services of Western Australia has begun with the inauguration of a road transport service between Perth and Kojonup, controlled by the Government Railway, states the British press.

A bus driven by a charcoal gas-producer mounted on a trailer provides service between Perth and Kojonup and Williams, two important country centers situated on cross-country railway branch lines. Both towns are on a direct main road to Perth—the distance to Perth being 62 and 73 miles, respectively, *less* than by rail.

The new service provides a good start to a program of closer road-rail coordination, which is needed in many districts of the country where the more direct route to the city is by road.

Bolivia

Transport and Communication

New Train Put On, La Paz-Buenos Aires.—Two trains a week—instead of one, as formerly—are now running between La Paz, the capital of Bolivia, and Buenos Aires, the capital of Argentina. The schedule of the new (second) train calls for departure from La Paz at 2 p. m. Sunday, with arrival at Buenos Aires, Thursday noon. Returning, the new train leaves Buenos Aires, Sunday at 5 p. m., arriving at La Paz, Thursday at 5:30 p. m. The new service has been in effect since July 5.

Brazil

Tariffs and Trade Controls

Raw Materials for Manufacturing Gasogene Apparatus: Sales, Prices, and Stocks Controlled.—The Brazilian National Gasogene Commission of the Ministry of Agriculture and the Metallurgic Commission of the Ministry of Marine have been authorized to take measures necessary for obtaining new or used metallic material for the manufacture of gasogene apparatus, under provisions of decree-law No. 4499 of July 20, 1942, to be effective from the date of publication. In addition to its previous powers, the Metallurgic Commission is authorized to:

A. Establish a priority schedule for the purchase and sale of metallic raw materials useful for the military and economic defense of the country;

B. Build up stocks, control commercial transactions, establish basic prices, and requisition all and any metallic materials that may interest the National Gasogene Commission.

All importing, reselling, or industrial firms possessing metallic material which may be used in the manufacture of gasogenes must declare their stocks to the Metallurgic Commission within 30 days from the publication of the decree-law. A list of the material covered by this provision will be drawn up by the National Gasogene Commission and should be obtained from the Metallurgic Commission by the firms mentioned above. No commercial transaction involving this material may be undertaken unless approved by the Metallurgic Commission. This Commission may delegate powers to the State Gasogene Commissions, to Public Departments, or to the Bank of Brazil, to control commercial transactions of the material in question in the States and in Acre Territory.

Penalties provided for under previous legislation to safeguard popular economy and national safety will apply to violations of the present decree-law.

Cuba, Too, Has Transport Troubles

A number of measures have recently been taken in Cuba to eliminate the unnecessary use of tires and gasoline and thereby conserve these materials.

All public-service carriers of passengers and freight, taxis, and private trucks must reduce their present services by 20 percent. The Cuban National Transport Commission has the power to coordinate and consolidate duplicating services, and all carriers must inform the Commission as to the number of busses and trucks which have to be withdrawn from service because of the new conditions.

Maximum speed limits have been established—the amount of baggage that may be carried by passengers is limited—and bus companies may not offer excursion or other special services without authorization.

Private busses and trucks may be used only when their use is considered indispensable, and new registrations will not be authorized.

British West Indies

Economic Conditions

DEVELOPMENTS IN TRINIDAD AND TOBAGO

Shortages of many items of trade governed the economy of the islands of Trinidad and Tobago during July, and attempts to ease this condition were only partially successful. The food shortage, for the last several months a factor of undeniable gravity, continued throughout July, but plans are under way to remedy this situation. The shortage of electrical power is also expected to be appreciably relieved by the installation of newly arrived equipment. The water supply, heretofore seriously depleted, is gradually regaining its normal level. Moreover, some improvement has been noted concerning the seed shortage which was prevalent in June, and which had hindered the Government's institution of its proposed mixed farming policy.

Production of sugar has slumped by reason of a pronounced labor shortage, which has caused two of the largest grinding mills to suspend operations.

Petroleum production, the Colony's principal industry, continued at capacity levels during the period under review. Most of the other local industries produce exclusively for domestic consumption and have experienced prosperous conditions as a result of the pay rolls from the North American bases.

The cost-of-living index rose 4 points in July, standing at 159 (base year: 1935, taken as 100). Clothing, fuel, and light costs rose slightly, and shortages in kerosene and charcoal are expected to be relieved by improved electrical facilities, with resultant lower prices for these fuels. The Government Railway has reduced its services somewhat and is taking steps to curtail travel.

Tariffs and Trade Controls

Wartime Supplies Commission Appointed in Bermuda.—The Governor of Bermuda has appointed a Wartime Supplies Commission to coordinate all of the Colony's agencies concerned with the procurement and distribution of supplies, and to plan and formulate policy. The present Food and Supplies Control Board is to be reconstituted into two boards—the Import Board, to deal with imports, bulk purchasing, and storage; and the Rationing and Prices Board. A Director of Supplies has been appointed who will coordinate information, statistics, recommendations, and decisions.

Since it has become increasingly necessary that Bermuda's purchases, routing of goods, and distribution of shipping space be controlled to a greater extent in the United States and Canada, the Governor also proposes to appoint a North American Supplies Mission, which will make all necessary arrangements to route and ship goods destined for Bermuda, make bulk purchases, and maintain close contact with supply and shipping authorities in North America.

For the purpose of increasing local food production, the Board of Agriculture has appointed a Food Production Officer, and a Fisheries Commission is being set up by the Board of Trade.

Canada

Wartime Commodity Controls

Raw Jute: Sale and Manufacture Restricted.—No person in Canada, having in his possession, or under his control, any raw jute, may sell or otherwise dispose of any part of such raw jute, without the written permission of the Administrator to such sale, according to an order by the Administrator of Cotton, Ottawa, effective August 11, 1942.

The possessing or manufacture of any raw jute is prohibited also, unless permission is obtained in writing from the Administrator. Provision is made, however, that any processing of raw jute or the manufacture of any products from raw jute which had been commenced prior to the effective date of the order, may be completed.

Production of Domestic or Commercial Vacuum Cleaners Prohibited Except by Permit.—The manufacture in Canada of household electric vacuum cleaners, portable, commercial, and industrial vacuum cleaners is prohibited without a permit, in writing, from the Controller of Supplies on and after August 15, 1942, according to an order of the Controller issued on August 1, and published in the Canadian Gazette, Ottawa, on August 8. Nothing in the order shall limit the manufacture of parts intended for the repair of existing units of the above-mentioned vacuum cleaners. Likewise, nothing in the order is to apply to or affect the fulfillment of any purchase order from the Department of Munitions and Supplies or the Department of National Defence.

Every person making any vacuum cleaners must file, on or before the 24th of any calendar month, a signed statement with the Controller of Supplies giving details as to the number of units of each class of vacuum cleaners on hand at the close of the preceding month, the number manufactured, the number sold, and the revenue from the sale thereof (including the sales tax, but excluding the excise tax) derived by the person making the vacuum cleaners. The statement must also include the total value, at net selling price, of all vacuum cleaner parts made and intended for the repair of existing units.

All units made or sold in fulfillment of orders received from the Department of Munitions and Supplies and the Department of National Defence shall be indicated and totaled separately on the statement.

In announcing the above order, the Controller of Supplies stated that: "Upon application, permits may be issued to manufacturers who wish to clean up inventories of pre-fabricated parts after August 15, but it is not expected that this permission will be extended beyond December 31."

[The production of vacuum cleaners was limited in October 1941, to 75 percent of the monthly average number of units made in 1940. For previous announcement, see FOREIGN COMMERCE WEEKLY of October 25, 1941.]

Fewer Varieties of Each Line of Cosmetics to be Manufactured.—The manufacture in Canada of nail polish, perfumes, colognes, toilet waters, powders, rouges, lipsticks, hand and face lotions, and hair tonics has been restricted to specified numbers of shades and odors (sometimes called brands), according to an order issued by the Administrator of Pharmaceuticals and Toilet Goods, Ottawa, on July 22, 1942.

Any manufacturer who makes, prepares, or packages cosmetics for sale under the trade name or brand of any customer may use shades or odors (sometimes called brands) of any customer, other than those used in the cosmetics packaged for sale under the trade name or brand of the manufacturer himself or any other customer, but in no case shall the number of shades or odors used

Keen Comments on World-Economy Today

[Seventeenth in a series of excerpts from notable books and speeches]

International Trade Must Be Restored

There is obviously a growing recognition of the fact—for fact it is—that the improvement of living standards or even their maintenance depends in large measure upon access in some fashion to raw materials scattered about the globe

For the first time in its history, the United States is being made aware of the dependence of its industries upon imported raw materials. Germany, Italy, and Japan must use every possible means to replenish their stocks of alloy minerals, if not by running the blockade, then by use of the commercial air lines. The use of reserve stocks, scrap, substitute materials, and civilian supplies must be supplemented by looting the conquered peoples—and even then there is a steady dwindling of available resources. The pre-war Nazi slogan "We must export or die" has become, in Dr. Goebbels' recent broadcasts, "We must conquer or die."

Unless access can be gained to sources of oil, rubber, textiles, and alloy minerals, the vast industrial production necessary for modern war must ultimately be curtailed. The limits of civilian consumption may be compressed, ingenious substitutes may be devised, and waste material may be reclaimed in greater measure than most experts had believed possible; but the costs run high, and there are limits to the efficiency of such makeshifts. Though real gains may be made in the application of new scientific processes, they do not compensate in the aggregate for the lack of access to abundant natural raw materials. . . .

There does not seem much reason to believe that in our time the problem of access to dispersed raw materials will cease to be an important consideration in shaping national economic policies.

The obvious way to provide access is *by restoring international trade.* If this cannot be done, a stupendous economic disaster must ensue for great masses of workers in the raw-material-producing countries.

(*From "Agenda for a Post-War World," by J. D. Condliffe, Professor of Economics, University of California. Publishers: W. W. Norton & Co., Inc., New York, N. Y. The above is the third and last of the brief excerpts from this notable new book which Foreign Commerce Weekly has been privileged to reproduce.*)

by him in the manufacture for each customer, exceed the specified number provided in the order. Miniature or sample sizes have been prohibited, and no new cosmetics may be placed on the market without permission. Consignment shipments are no longer permitted.

The order further provides that cosmetics which are on hand or in the process of manufacture on July 22, are not affected, but the sale of any such goods by the manufacturer is to be prohibited after December 31, 1942.

The number of each kind of article which the individual manufacturer may manufacture, pack, distribute, or sell follows: Six shades of nail polish; four odors each of perfumes, colognes, toilet waters, talcum, bath and dusting powders; four shades each of rouges, including cream and liquid rouges and refills; lipsticks, including refills; and face powders; three shades each of hand and face lotions, hair dressings, tonics and oils, and brilliantine, solid or liquid.

Tariffs and Trade Controls

Crude Petroleum, Oil and Natural Casinghead Gasoline: Imports Admitted Under General Permit.—Crude petroleum oil, not subjected to any other process than natural weathering and removal of foreign matter and water, and natural casinghead, compression or absorption gasoline, lighter than 0.6852 specific gravity (75.0 A. P. I.) at 60° F., may be imported into Canada under General Permit Nos. 2374 and 2375, respectively, when imported by oil refineries to be refined in their own factories, and by refiners of crude petroleum for blending with gasoline already produced in Canada, according to WM No. 34. Supplements 7 and 8, issued by the Canadian Department of National Revenue, Ottawa, July 21, 1942.

Silver, Ores and Concentrates, Scrap, Salts and Compounds: Export Prohibited Except Under Permit.—Exports from Canada of silver, silver ores and concentrates, metal and alloys, semifabricated and fabricated, scrap, salts and compounds are prohibited except under permit, issued by or on behalf of the Minister of Trade and Commerce, according to an order in council dated August 12, and published in the Canadian Gazette, Ottawa, on the same date.

Transport and Communication

Air Service in Northwest.—The new airports between Edmonton and Whitehorse being built by the Canadian Government will be used by Trans-Canada Air Lines exclusively, according to a recent announcement. The other air line operating to the Yukon and holding the mail contract is Yukon Southern Air Transport, one of the most important companies acquired by the Canadian Pacific Railway Co., and the pioneer route from Canada to Alaska and the Yukon.

"Trans-Canada's" Eastern Service Increased.—Trans-Canada Air Lines has increased its eastern service by making Sydney, Nova Scotia, a point of call on the route from Moncton, New Brunswick, to Newfoundland, says the Canadian press.

With a daily round trip between Moncton and St. John's, Newfoundland, Trans-Canada has telescoped a journey of days into less than 5 hours. The main line now extends from Vancouver, British Columbia, to Newfoundland.

Northern-Route Air Service to Europe Resumed.—The Transatlantic Air Mail Service from Canada to the United Kingdom via Newfoundland and Eire (Northern Route) has been resumed.

The Postmaster General of Canada has announced that the air-mail rate, including postage within Canada to destinations in the United Kingdom and Eire, is 30 cents per one-half ounce or fraction thereof. Such air mail should be endorsed "Via Trans-Atlantic Air Mail."

Air mail for Sweden will be dispatched by air beyond England, the rate from Canadian point to destination being 40 cents for one-half ounce or fraction thereof.

The nonair mail and parcel-post services from Canada to Sweden are still suspended.

Chile Wrestles With Shipping Problems

The crisis in Chile's international and coastal trade has resulted in the creation of a Chilean Government department charged with the responsibility of establishing a shipping plan; attending to the development, commercial organization, and efficiency of the Chilean merchant marine; and studying solutions to the general problems of maritime traffic and shipping rates.

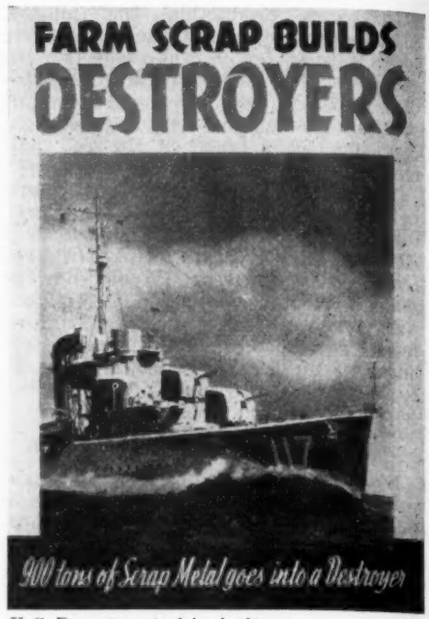
Drastic measures are being considered as a means of relieving the shortage of ships. Among these are the rehabilitation of abandoned ships and the better planning of the use of cargo space to prevent ships from returning in ballast to their home ports.

Chile

Exchange and Finance

Public Credit Commission.—A Public Credit Commission was established by a decree of the Minister of Finance on July 23. This commission was created under article 13 of the Emergency Law. Its membership is to include representatives of the Ministry of Finance, the Autonomous Amortization Institute, the private mortgage banks and the municipalities. The commission is to be a dependency of the Ministry of Finance.

The decree of July 23 charges the commission with the task of drawing up, before December 15 of each year, an estimate of the funds available in the domestic market for investment in long-term bonds to be issued by the Central Government, the municipalities, and the various mortgage banks. This bond-purchasing capacity will be "allocated" among the various borrowers according to their needs.



U. S. Department of Agriculture

The estimate thus made will constitute an annual report which will be promulgated in final form by the Minister of Finance before the end of the year. The Comptroller General of the Republic is prohibited from issuing decrees authorizing the issuance of Government or Government-guaranteed bonds without previously obtaining the opinion of the Public Credit Commission.

The Mint is prohibited from printing bonds for municipal loans without a certificate of approval from the Commission. The Superintendent of Banks is charged with seeing that the various mortgage banks limit their bond flotations to the limits fixed for each year by the Commission.

Condition of Obligatory Insurance Institute.—The Obligatory Insurance Institute is facing financial bankruptcy, according to a report published recently by the Chief of the Social Insurance Section of the Government. It was stated that workers' insurance now costs 9.8 percent of the total salaries paid to workers; the total collected from this source in the last fiscal year was 64,200,000 pesos. The enormous increase in medical expenses totally exhausts the contributions of employers and of the State; last year these contributions were 168,700,000 and 61,300,000 pesos, respectively. On its investments the Institute reecived a return of only 2.9 percent, while a rate of at least 5 percent would be necessary from an actuarial standpoint. Thus the Institute has been unable to accumulate reserves to pay old and incapacitated workers. The theoretical deficit at the end of June 1942 was 643,000,000 pesos.

Loans and Advances by Fomento Corporation.—A total of 26,424,000 pesos of loans and advances was approved by the Directors of the Fomento Corporation on July 17 and 22. Of this total, 9,420,000 was for agricultural development, 1,298,000 for mining, and 15,706,000 for miscellaneous purposes. The most important

individual projects for which loans or advances were granted were as follows:

(1) Sociedad Agricola y Ganadera Rupanqui.—The Fomento Corporation may invest up to 9,000,000 pesos in shares of this 35,000,000-peso company, which is formed in asscciation with the Banco de Chile, the Mortgage Credit Institute and others. The new company will try to increase the production of genetic seeds, especially wheat. It will also attempt to establish animal husbandry, breeding farms for sheep and for beef and milk cows, with the purpose of gradually improving the stock. Finally, it will carry out a broad policy of reforestation in certain areas.

(2) Sociedad Chilena Industrial de Pesca.—The Corporation may subscribe up to 1,500,000 pesos in stock to be issued by this organization and may grant it a loan of equal amount. These investments are made to enable the organization to increase its fish-canning activities.

(3) Workers' houses.—The Corporation may grant the Municipality of Vina del Mar a loan of up to 6,000,000 pesos for the construction of workers' houses.

(4) Laboratorio Chile.—The Corporation may purchase up to 4,000,000 pesos of shares in this enterprise which recently increased its capital.

(5) Ship repair.—The Corporation may loan up to 2,500,000 pesos to a shipbuilding firm to enable the latter to continue repairs on certain vessels.

Protecting Rubber Tappers' Health

The lonely rubber tapper ranging the vast forests of the other Americas will, like his fighting fellowman in the military services, receive unusually good attention in this war.

The rubber gatherer is destined to become one of the chief beneficiaries of a broad inter-American health and sanitation program now going into action. This cooperative program has been undertaken upon the recommendation of the successful Rio de Janeiro Conference of American Foreign Ministers in Brazil last January.

Already the United States Government has sent health and sanitation missions to most of the other American republics to collaborate with authorities on projects to protect workers in rubber and other industrial developments. These missions are composed of highly skilled tropical medical specialists, engineers, and other technicians.

Noteworthy in this program are special plans for the vast Amazon Basin—potential source of great quantities of rubber, vegetable oils, and other materials, to replace supplies formerly obtained in the Far East.

Additional health and sanitation work became necessary as a result of the tremendous expansion of the program for development of this hemisphere's resources.

Tariffs and Trade Controls

Wheat Flour: Import Duty Reduced Temporarily.—The Chilean import duty on wheat flour, imported in containers of more than 5 kilograms net weight, was reduced from 0.35 to 0.225 gold peso per kilogram gross weight, by a decree of July 27, 1942, effective for a period of 1 year from that date.

Cuba

Wartime Commodity Controls

Potatoes and Chickpeas: Detailed Estimates of Stocks Required by Office of Price Regulation and Supply.—Two additional articles of prime necessity, potatoes and chickpeas, have been added to the list of previously mentioned items—rice, wheat flour, beans, edible oils and fats—concerning which all dealers, commission agents, and representatives of foreign firms are required to submit to the Office of Price Regulation and Supply (ORPA) detailed inventories of stocks on hand as of January 1, 1942, according to resolution No. 20, published in the Gaceta Oficial of July 28, 1942.

Exchange and Finance

Restrictions on Foreign Currency Movements.—The movement of foreign currencies was considerably restricted by a Presidential Decree published in the Gaceta Oficial of July 13. The decree prohibits the importation of foreign currency and coins, including those of the United States, except when importation is made through a central bank established in the Western Hemisphere or through banks domiciled in the United States.

Travelers from any foreign country must deliver the foreign currency, or United States dollars, in their possession, except a reasonable amount, not in excess of $250, to defray their expenses while in Cuba. The currency so delivered is to be deposited in a bank designated by a newly established Office for Control of Exchange and Movement of Foreign Currencies, and is not to be withdrawn until expressly released, after it has been ascertained that no transaction is involved that might benefit nations at war with Cuba.

The decree also allows the exportation of the coined currency mentioned above, and of securities of any kind, only after prior authorization has been granted. This provision applies regardless of the destination of such currency, coin, or securities.

Natural or juridical persons residing in Cuba may not receive, use, or transfer funds, securities, or other property coming from enemy or enemy-controlled countries, or from citizens of such countries. Neither can Cubans, natural or juridical, use foreign money or United States dollars brought into Cuban territory in violation of the decree.

U. S. Department of Labor

The Office for Control of Exchange and Movement of Foreign Currencies is to be attached to the Special Public Works Fund Bureau. The powers of this Office are as follows:

(1) To seize foreign currency or United States dollars imported, or attempted to be imported, into Cuba in violation of the present law.

(2) To deposit seized funds in banks in Cuba in special accounts. Withdrawals from these special accounts may be made only with the approval of the Office.

(3) To authorize the exportation of foreign currency or United States dollars, as well as securities, after it has been ascertained that such exportation is proper.

(4) To grant banks operating in Cuba authorization to carry on normal banking business under certain conditions (see below).

(5) To make or authorize to be made such investigations as may be deemed advisable.

(6) To recommend to the Minister of Finance the adoption of such measures as he may deem proper for the achievement of the ends sought.

The Director General of the Special Public Works Fund is to be the Chief of the Control Office established by this Decree and is empowered to issue such regulations as he may consider advisable for prompt handling of matters coming before the Office.

Banks operating in Cuba may, pursuant to a general authorization from the Office, deal with their usual clients in drafts, transfers of funds, or other exchange operations ordered from countries within the Western Hemisphere, through a central bank or a credit institution domiciled in the United States. They may order payments to be made, place funds, and open credits in the countries of America, for account of such clients. These transactions are to be made on the responsibility of the banks themselves, after verifying in each case that the transaction is legitimate and that it will not benefit in any way the countries at war with Cuba or the nations dominated by them. To that end the banks will require the interested party to produce an affidavit, in a form approved by the Office.

The banks may also make collections and payments resulting from commercial transactions originating in credit institutions of the United States or in central banks of the Western Hemisphere.

It will be presumed that an operation is not legitimate when it involves the use of funds or money imported from continental Europe or areas occupied or dominated by the Axis powers. A usual client of a bank will be understood to mean any person, natural or juridical, who has had a current account with the bank at least 6 months prior to the date of a proposed transaction. Transactions with other than usual clients or with countries not of the Western Hemisphere require prior authorization from the Office.

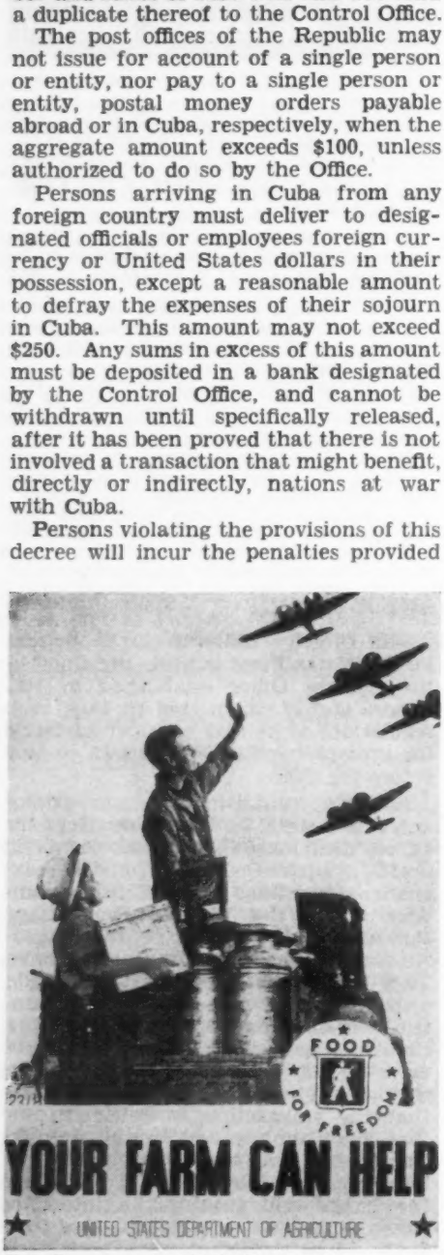
Banks receiving United States currency of denominations greater than $100 will require the party delivering it to sign a statement containing the number and series of such bills and will send a duplicate thereof to the Control Office.

The post offices of the Republic may not issue for account of a single person or entity, nor pay to a single person or entity, postal money orders payable abroad or in Cuba, respectively, when the aggregate amount exceeds $100, unless authorized to do so by the Office.

Persons arriving in Cuba from any foreign country must deliver to designated officials or employees foreign currency or United States dollars in their possession, except a reasonable amount to defray the expenses of their sojourn in Cuba. This amount may not exceed $250. Any sums in excess of this amount must be deposited in a bank designated by the Control Office, and cannot be withdrawn until specifically released, after it has been proved that there is not involved a transaction that might benefit, directly or indirectly, nations at war with Cuba.

Persons violating the provisions of this decree will incur the penalties provided in existing legislation for disobedience. In addition, the funds attempted to be withdrawn in violation of the present decree will be held until the end of the war, without prejudice to such other penalties as are established in article 8 of the law of July 23, 1918.

Decree No. 1688 of June 18, 1942, and the orders ("expedientes"), licenses and permits that were being handled under the terms thereof, will be harmonized with the provisions of the present decree, which will take effect from the date of its publication in the Gaceta Oficial.



U. S. Department of Agriculture

Tariffs and Trade Controls

Port of Actual Shipment Required on Consular Invoice.—The Consulate General of Cuba in New York has advised, in an announcement dated August 13, 1942, that on and after August 24 it will not accept any consular invoice marked "f. o. b. New York," if the merchandise is to be shipped through any other port.

Cigar Boxes: All Shipments Containing Cigar Boxes Require Export Permits.—All export shipments from Cuba of cigar boxes, whether sent through the customs office, the post office, express companies or agencies, or by air mail, require export permits issued by the National Commission of Propaganda and Defense for Habana tobacco, according to decree No. 1850, published in the Gaceta Oficial of July 18, 1942, which modifies sections three and four of decree No. 1765 of August 2, 1938, published in the Gaceta Oficial of August 31, 1938.

Dominican Republic

Tariffs and Trade Controls

Price Control Established for Articles of Prime Necessity.—Governmental control of maximum prices in the Dominican Republic of articles of prime necessity, particularly foodstuffs, has been established by decree No. 81 of June 23, 1942, published in the Gaceta Oficial of June 27, 1942. The list of articles to which such control is applied includes coal, meat, milk, bread, rice, sugar, butter, kidney beans, onions, potatoes, plantains, preserves, pastes, and similar items recognized as being of prime necessity to families.

The purpose of the measure is to maintain at an equitable level the prices of these commodities, which have become scarce as a result of the war.

Pharmaceuticals: Price Control Commission Created.—The Dominican Republic has created a Price Control Commission to regulate prices of pharmaceutical products and pharmaceutical specialties, by terms of decree No. 82 of June 23, 1942, published in the Gaceta Oficial of June 27. The Commission is authorized to fix maximum prices of these articles and to publish in the press the price lists pertaining to the aforementioned items.

The purpose of the decree is to maintain at an equitable level the prices of these commodities, procurement of which has been made difficult as a result of the war.

Rice: Exportation Restricted to Producers and Persons Meeting Specified Requirements.—The right to export rice from the Dominican Republic has been limited to persons who themselves are rice producers or to persons or enterprises having a permanent investment in rice cultivation of at least $75,000, according to Dominican decree No. 139 of July 28, 1942. The Rice Controller, who is in charge of issuing rice export permits, will grant such permits only to the persons or entities who fill the requirements as stipulated above.

Matches: Exportation and Reexportation Prohibited.—The exportation and reexportation from the Dominican Republic of matches of all types is prohibited except under special permission from the Executive Power, according to decree No. 122 of July 17, 1942, published in the Gaceta Oficial of July 20, 1942. To obtain this permission, prospective shippers must prove that such exportation will result neither in shortages in the country nor in price increases.

The purpose of the decree is to reduce exportation of matches until domestic requirements have been satisfied.

Egypt

Wartime Commodity Controls

Ice: Maximum Price May Be Fixed.—Ice has been added to the list of commodities for which maximum prices may be fixed by the Egyptian Government, according to a decree issued by the Ministry of Commerce and Industry on July 30, 1942, and published in the Journal Officiel of August 3.

Finland

Economic Conditions

Food Shortage Continues

Despite some seasonal betterment in the Finnish food supply situation, owing to the availability of vegetables, to an increased milk supply resulting from pasturage of cattle, and to improved results from Baltic fishing, per capita rations continue at low levels.

Because of the unfavorable prospects of the 1942 grain harvest it has been found impossible to increase the bread ration (which amounts to only 8 kilograms per month for the average adult). The sugar ration was only 750 grams per capita during August and may have to be reduced further. The meat ration is negligible, amounting to 8 marks' worth per capita per month, in theory, but even this small quantity is often unobtainable. For children aged up to 17 years, there were allotted two eggs apiece for the month of August. The dried fruit ration consisted of 250 grams of figs, while special rations of 500 grams of jam or marmalade and one-half liter of fruit juice were issued during the month.

The monthly fat ration is only 400 grams, but was even lower (300 grams) prior to April of this year. An extra ration of 250 grams of cheese was allowed during the month of August. The per diem milk ration at present is 1 liter for infants, ⅗ liter for children up to 17 years of age, and ⅕ liter for adults.

Official food prices continue to rise. On August 1, 1942, the following increases were made in retail prices: Butter, from 44 to 54 Finnish marks per kilogram; milk, from 2.80 to 3.60 marks per liter; "Emmenthal" type cheese, from 32 to 39 marks per kilogram. "Black market" prices are of course prohibitive, but berries, which are unrationed, are unobtainable at the officially established prices and may be had only through illicit channels.

France

Tariffs and Trade Controls

Rolled, Forged, or Cast Aluminum, and Iron or Steel Pipes: Import Duties Suspended Temporarily.—French import duties on rolled, forged, or cast aluminum, and iron or steel pipes were suspended for a period of 6 months from December 6, 1941, by an order published in the Journal Officiel.

Special Sales Tax Established to Cover Expenses of General Trade Organization Committee.—A special sales tax of 0.15 percent ad valorem has been imposed in France on the turn-over of specified concerns, to cover the administrative expenses of the General Trade Organization Committee established by the decree of May 4, 1941, by an order published in the Journal Officiel.

The concerns subject to this tax include: Wholesale and retail sales concerns; commission sales concerns; various intermediaries of the distribution trade; and import and export trades.

Paper and Paper Products: Special Production and Sales Taxes Imposed.—Special taxes of 100 francs per concern plus 0.30 percent on the annual turnover of each concern have been imposed in France on industries manufacturing and transforming paper, to cover expenses of the two trade organization committees of these industries, by an order effective retroactively from January 1, 1941.

Milling Trade: Trade Organization Committee Formed.—The French trade group of the milling industry has been reorganized as a Trade Organization Committee for the Milling Industry, by law No. 4799 published in the Journal Officiel.

This committee is to organize the milling industry and assist in preparing programs of production and manufacture of flour, distribution, and the like.

Cheese: Regulations Governing Use of Names Modified.—French pure-food regulations governing the designations of various types of cheese have been modified temporarily, by decree No. 5113 published in the Journal Officiel.

[See COMMERCE REPORTS of October 9, 1937, for announcement of a previous change in these regulations.]

French Morocco

Tariffs and Trade Controls

Citrus Fruits: Supplementary Export Control Tax Abolished.—The supplementary export control tax of 15 francs per metric ton on citrus fruits exported from the French Zone of Morocco has been abolished by a vizirial order of December 31, 1941, published in the Bulletin Officiel of February 13, 1942.

[See COMMERCE REPORTS of December 23, 1939, for announcement of establishment of this tax.]

Apricot and Peach Stones and Kernels: Export License Taxes Fixed.—Export license taxes have been imposed on apricot and peach stones and kernels exported from the French Zone of Morocco, effective from February 10, 1942, by a resolution of February 2, published in the Bulletin Officiel of February 13.

The new taxes, in francs per kilogram, are as follows: Apricot and peach stones, 0.65; apricot kernels (almonds), 8; and empty shells of apricot stones, 1.80.

[The establishment of export license taxes to equalize prices had been authorized by a dahir of February 25, 1941. See FOREIGN COMMERCE WEEKLY of November 29, 1941.]

Haiti

Economic Conditions

Economic activity in Haiti was relatively slow during July. Many factors, including the important one of ship shortage, tended to keep business almost at a standstill. Wholesale and retail stocks of most lines are becoming depleted, and importers, exporters, wholesalers, retailers, and consumers are feeling the effects of the reduced trade caused by diminished supplies. The electrical-goods trade has been noticeably affected by electric-power rationing, which has resulted in a reluctance on the part of the public to buy electrical appliances. Petroleum is also being rationed. Stocks of automobile parts and accessories, textile stocks, and building materials are also in short supply, though sales values have been well sustained.

Large amounts of capital are tied up in export crops—particularly coffee—which are being held pending adequate shipping facilities. This has tended to tighten credit and has restricted purchases of crops coming on the market.

Italy

Transport and Communication

Needless Motor-Vehicle Operation Curbed.—Comments in the Italian press indicate that too many nonessential automobiles continue to circulate in Italy. It is pointed out that many people having cars use them for pleasure, securing gasoline or methane from illegal sources.

Suggestions are made for an immediate "clamp-down" on those abusing their privileges as well as for a revision of automobile permits, as many businesses operate vehicles needlessly.

Mexico

Tariffs and Trade Controls

Additional Products Made Subject to Prior Export Permits.—White and brown sugar, cane sirup, cocoa, new and used sacks of palma ixtle, cotton cloth and fabric, oils, hogs, electrical installation materials, wire, industrial machinery, and metal hardware have been added to the list of products requiring prior export permits issued by the Department of National Economy, by a Mexican presidential decree, published in the Diario Oficial of August 10, 1942, and effective the day following.

That Department will permit the exportation of listed products only after

Africa's "Horseshoe" Air Route

Twelve Short S–23 Empire flying boats of British Overseas Airways based at Durban, South Africa, for the Horseshoe section of the Empire routes are now flying at the rate of 20,800 hours a year, says the British press.

This means a total distance of nearly 3,000,000 miles, or an average of about 250,000 miles for each flying boat. Engine hours for the 12 boats on operations alone are 83,200 a year.

Three of the flying boats, the *Castor*, *Canopus*, and *Cameronian*, have each completed 1,000,000 miles of flying since they first went into service, in October and December 1936 and October 1937, respectively.

Because of the loss of the Netherlands East Indies, the Horseshoe section has now been reduced to a route between Durban and India.

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the needs of the domestic market have been met and subject to the fulfillment of requirements that the Department will establish in each case.

[For lists of other products subject to export control, see FOREIGN COMMERCE WEEKLY of January 17, May 9, and May 30, 1942.]

Netherlands

Exchange and Finance

Nazi Juggling With Dutch Finances.—German tampering with the Netherlands Banking Law of 1937, and bookkeeping jugglery, have reduced the currency of the occupied Netherlands to complete dependence on the German mark, and opened the door to almost unlimited inflation, says a statement by the Netherlands Government in Exile.

This jugglery involves attempts to use for Nazi purposes gold reserves still in the hands of the legitimate Netherlands Government, and far beyond the reach of the Germans and their Dutch puppets.

A decree of the Secretary-General of Finance in occupied Holland changed the 1937 law—which compelled a coverage in gold to the value of two-fifths of the entire banknote issue—to permit this coverage to consist of gold reserves, foreign bank credits, checks payable abroad, bills of exchange, and foreign treasury bills. The foreign paper thus made eligible as coverage for note issue is of course almost entirely German, which means that currency issued in the occupied Netherlands has now been reduced to complete dependence on the German mark, and can be increased in volume almost automatically, and to almost any amount, at the will of the German authorities.

The Netherlands Bank, the Dutch central bank of issue, has ever since the German occupation been flooded with German paper, which it was compelled to take up to offset the market balances perforce in the hands of Dutch businesses and industry as the result of German trade and German "business" operations.

Official OWI Photo

This German paper, now eligible for banknote coverage, represents German "payment" for Dutch goods and services. There has been, of course, no export whatever of German goods to the Netherlands to counterbalance it.

The German newspaper Koelnische Zeitung, of Cologne, stated, some months ago, that the banknote circulation in the Netherlands was 2,183,000,000 guilders. Before the invasion the amount of banknotes in circulation was generally around 1,000,000,000 guilders. The Nazi newspaper listed the gold reserves of the Netherlands Bank as 1,026,000,000 guilders, and its holdings of foreign paper eligible for coverage use under the new decree as 1,263,000,000 guilders.

The Nazi-framed decree thus makes it possible to inflate the currency by many billions of guilders within a framework of technical legality. The great financial liquidity in the occupied Netherlands causes an impression of prosperity which is no more than "paper prosperity."

The available amount of commodities is constantly diminishing—which fact is reflected in the fantastic prices of the "black market." The new decree indicates a further worsening of conditions and an attempt on the German side to have more of the Dutch gold reserves available for the purposes of German economy.

Newfoundland

Tariffs and Trade Controls

Coal: Imports Subject to License.—No anthracite or bituminous coal of any kind may be imported into Newfoundland except under and in accordance with the terms and conditions of a license granted by or on behalf of the Commissioner of Public Health and Welfare, according to a regulation made by the Governor in Commission, dated August 4, 1942, and published in the Newfoundland Gazette of the same date.

For the purpose of maintaining supplies and services essential to the life of the community, the Commissioner may control and regulate the importation of coal into Newfoundland and require all or any persons trading or dealing in coal "to obey any direction given by him relating to the time, manner, and place of importation, and the quantity or quality of coal to be imported into the country or countries from which coal shall or may be imported."

Paraguay

Transport and Communication

Busses Increasingly Utilized.—The trend toward utilizing busses rather than street railways for transportation in Asuncion, Paraguay, continued during 1941.

The partial completion of the Marshal Estigarribia Highway has encouraged the growth of bus traffic between Asuncion and the many small-population settlements located on that road.

An appreciable number of passengers, and a comparatively important quantity of freight, are now moved by bus at a great saving of both time and expense.

Postal and Telegraph Service Expanding.—The Government-operated Posts and Telegraph Administration in Paraguay reported the opening of 14 new offices in 1941, as well as the construction of 473 kilometers of new telegraph lines, and the creation of new radiotelephone connections between Asuncion and such localities as Montevideo, La Paz, Isla Margarita, and Yhu.

The mail handled increased from 32,404 sacks and 121,958 packages in 1940 to 39,249 sacks and 125,804 packages in 1941. With the air-mail services increased from three to five out-bound planes per week, the total mail handled rose from 156,809 pieces in 1940 to 207,640 in 1941.

Sweden

Transport and Communication

Goteborg Plans Special Basin for Laid-Up Ships.—The Goteborg Harbor Board has asked for a grant of 435,000 Swedish crowns to meet the cost of a special harbor for laid-up shipping, which will be situated immediately northeast of the T-Canal, near the entrance to the Free Harbor. It will be able to accommodate 10 vessels of a maximum length of 180 meters. The width at the surface of the water will be 270 meters, and a depth of 7 meters will be provided for a width of 230 meters.

Switzerland

Tariffs and Trade Controls

Application of Import Duties Varying According to Use of Goods Authorized.—The Swiss Direction General of Customs has been authorized, in special circumstances and if the economic interests of the country so require, to grant the benefit of import duties varying according to the use of goods other than those for which the customs tariff already provides differential rates, by an order of the Federal Council of July 21, 1942, effective from July 22 and published in the Recueil des Lois Federales of July 23.

Tunisia

Tariffs and Trade Controls

Solid Mineral Fuels: Price-Equalization Tax Established on Certain Imports.—A price-equalization tax of 50 francs per metric ton has been established in Tunisia on solid mineral fuels imported from France, Algeria, or Morocco, by a decree of February 28, 1942, published in the Journal Officiel Tunisien, of March 10.

This decree created a compensation office for regulating prices of solid mineral fuels.

Woolen Blankets: Exportation Prohibited.—The exportation of woolen blankets from Tunisia has been prohibited until further notice, in order to reserve wool for making clothing, according to a notice to exporters published in the Journal Officiel Tunisien, of March 5, 1942.

Turkey

Tariffs and Trade Controls

Sheepskins and Lambskins with Wool: Exportation Prohibited.—Export licenses will not be issued for the exportation from Turkey of sheepskins and lambskins with wool longer than 5 centimeters, or of clipped skins if the wool remaining on them is longer than 2½ centimeters, according to The Board of Trade Journal, London, July 4, 1942.

[Formerly the exportation of sheepskins with wool exceeding 7 to 8 centimeters in length was prohibited. See FOREIGN COMMERCE WEEKLY of March 7, 1942.]

United Kingdom

Economic Conditions

LABOR DEVELOPMENTS

British banks have carried out a reduction in personnel that will leave them with no more than 45 percent of their pre-war trained personnel. Stock Exchange personnel now represents no more than 40 percent of the pre-war figure, including less than 32 percent of the pre-war trained staff. Of those remaining, both in banks and the Stock Exchange, only a negligible fraction represents men of military age, and only in exceptional circumstances has deferment been sought for women in the 20 to 30 age group. Insurance companies also report that their staffs are greatly depleted. Many of them have released over 50 percent of their male staff for national service.

The policy regarding teachers is that male teachers over 35 in recognized schools are not to be called up for national service, and those under 35 whose calling up has been deferred will have their deferment continued. Female teachers will not be considered for withdrawal to the Auxiliary Services or to other forms of national service because of the withdrawal of several thousands of younger male teachers.

Labor is being directed into the cotton-spinning mills. In addition, part-time labor is being used extensively. Between 11,000 and 12,000 operatives are being returned to the industry from work of the highest priority, including munitions.

Women are being employed at a steadily increasing rate in the shipyards. The number employed has more than trebled within the last 12 months.

Uruguay

Exchange and Finance

Restrictions on American Currency.—A circular issued by the Bank of the Republic on June 30 greatly restricted operations in United States currency. Exportation and importation as well as purchase and sale of such currency may be made only by the Bank of the Republic. Travelers from the United States may negotiate up to $100 each within 15 days of their arrival, provided they present customs documents containing a statement of the sums in currency carried by them. Holders of United States currency had to declare their holdings by July 5. Travelers going to the United States may purchase from the Bank up to $100 each; such travelers will be provided by the Bank with suitable evidence of the negotiation, so as to eliminate difficulties upon their arrival at their destination.

Venezuela

Exchange and Finance

Loan Authorization.—The Executive was authorized to contract a loan of up to 68,000,000 bolivares, or its equivalent in foreign currency, by a law published in the Gaceta Oficial of July 17. The full amount is to be contracted in 4 years; 24,575,000 bolivares in the fiscal year 1942–43; 21,689,000 in 1943–44; 12,440,000 in 1944–45; and 8,947,000 in 1945–46. Interest is not to be more than 4 percent, and the minimum term is to be 12 years. The proceeds will be used to finance the Government's public-works program.

Bolivian Railway Problem

On One Line, in 5 Years, Traffic Has Multiplied Five Times, With No Increase in Equipment

[From the Office of the Coordinator of Inter-American Affairs]

The Atocha-Villazon Line, that section of the Bolivian Railroads which connects with the National Railways of Argentina, has in recent months been the object of critical comment, on the ground of allegedly unsatisfactory service.

The newspaper "Las Noticias" of Oruro, Bolivia, in a recent issue attributes the difficulties of this railway line mainly to the factor of obsolescence of locomotives. Interviewed by a representative of the press, Señor Luis Mendoza, Director General of the National Railways of Bolivia, cited facts which go far to explain today's traffic-congestion trouble on the Atocha-Villazon Line, and he presented a picture of resolute effort under a variety of embarrassing handicaps.

Chief difficulty at the present moment, says Señor Mendoza, is the fact that Bolivia's merchants expect prices of imported commodities to rise with the progress of the war and are therefore "swamping" the railroad with merchandise purchases made in hurried anticipation of such adverse developments.

Further, the two extra locomotives which the Bolivian Government rented from a neighboring country are not working very well—"one or the other being in the shop most of the time." These two engines—of the Garret type—will continue running until four new locomotives expected from the United States arrive in November.

In addition to these two Garret engines, the Atocha-Villazon Line has five locomotives of its own—two borrowed from the Arica-La Paz Line, two small yard engines from the Guaqui-La Paz Line (northern Bolivia), and one engine now being repaired in Argentina. This line also has an engine that has been in the shops for some years but which, in view of present exigencies, is expected to be back in service inside of 3 months.

The other rolling stock of this line consists of 2 passenger coaches, first class, 3 second class, 3 sleepers, 2 diners, 1 caboose, 2 baggage cars, 25 box cars, 5 gondola cars, 10 cattle cars, 9 flat cars, and 6 tank cars.

Each month, from 200 to 250—occasionally as many as *300*—Argentine cars are brought in with loads, the destination usually being the Bolivian capital, La Paz.

Bolivia's Minister of Economy has been requested to obtain in the United States 300 freight cars to be delivered at the same time as the locomotives which are expected toward the end of this year—but the Bolivians manifest a realization of the fact that the prospect of obtaining these is surrounded with much uncertainty.

In 1936 the Atocha-Villazon Line handled 20,482 tons of freight; in 1937, 25,000 tons; in 1938, 36,000 tons; in 1939, 40,000; in 1940, 59,000—*and in 1941, 118,793 tons.* In other words, without any new equipment and with the older equipment increasingly affected by the factors of obsolescence, this railway line lying in the heart of the South American continent has multiplied its volume more than five times in 5 years.

Figures for 1942 are not yet available, but Señor Mendoza expresses the conviction that they will most strikingly illustrate the swiftly mounting demands on the relatively meager facilities of the Atocha-Villazon Line.

Ordnance Department, U. S. Army

News by COMMODITIES

Aeronautical Products

Nazis Push Glider Output

Glider production is progressing on a large scale in Germany, according to reports from Sweden published by the British press.

Foremost in this production appears to be a type of 80-foot span, 800 square feet wing area, and an empty weight of 3,000 pounds. The disposable load of this glider reaches approximately 5,000 pounds.

It is understod that still larger gliders, designed for towing by Focke-Wulf Kuriers, are also under construction.

Students of the State Engineering College, of Stettin, have built a new light aircraft, La 11W, which can also be fitted with floats. The little plane is powered with a Mercedes engine of 23 horsepower and has a range of 218 miles and a maximum speed of 68 miles per hour. It climbs to 3,500 feet in 15 minutes. The wings are braced with two I-shaped spars and ribs in wood, and V-shaped wing struts are of steel tubing with plywood covering. The wings can be dismantled along with the struts. The fuselage is constructed in wood with plywood covering.

Automotive Products

Australia's Gas-Producer Leadership

That Australia is a leading country in gas-producer design is evidenced by the fact that the United States, United Kingdom, Canada, and South Africa have been sending for details of Australian-designed units, states the Australian press.

Every manufacturer is endeavoring to improve his unit. The Gas Producer Manufacturers' & Distributors' Association in Victoria (the membership of which is limited to State-wide distributors of licensed units) is now engaged in standardization of accessories and parts which are common to all types, since interchangeability facilitates the handling of replacement parts.

Gas producers cannot be turned out by automatic machinery, but standardized components now being adopted will be a practical means of reducing multiple effort without interfering with the main design of each manufacturer.

Coal Gas vs. Producer Gas in Britain

In protesting against claims made in some British quarters that containers filled with coal gas are superior to producer-gas equipment for economy of transport, a British trade journal states that there is little foundation for such assertions.

Coal gas may be used for short journeys, the journal points out, but its limitations should be distinctly realized. A gas container costs at least half (not, as has been maintained, one-fifth) as much as a producer plant, and gives at one filling a range of only 17 miles, for a fuel cost of 1s. 7½d. for 10 miles. In contrast, on producer gas the vehicle would cover 10 miles for 6.48d, and would have a range, with one filling of fuel, of up to 200 or more miles.

Producer gas is therefore much more adaptable for public service transport than is coal gas, and, the journal states, the claim that fewer than 100 gas producers still remain on the road is without a factual basis.

Chemicals

Australian Chemical Industries Advancing

Local production is now supplying a substantial part of Australia's chemical needs, press reports reveal. Iron ammonium citrate (green), used for medicinal purposes and for sensitizing blueprint paper for munition and engineering drawings, is now being made in South Australia. That State is also producing anhydrous basic subacetate of lead (Horne's dry lead), formerly imported from Germany—this product is used by the Queensland sugar industry, it is stated.

Patches Get Priority

Have you ever made a sudden move and heard an ominous ripping? In Nazi Germany that doesn't take on the proportions of a major catastrophe. One need not even back out of the room or stand against the wall, but can immediately demand relief in the form of a patch, and any German woman would be happy to tackle the job.

Mending has acquired Nation-wide importance and repairs must be given priority by tailors' establishments. Whole workshops in the clothing industry are engaged in repair work.

This intensive "repair campaign" is an outgrowth of the "Increased Production with Decreased Means" movement.

The manufacture of industrial plastics is another new industry recently established in South Australia.

More Alcohol From Wheat in Canada

A new plant, in Canada, of Commercial Alcohols, Ltd., costing $150,000 and built at Government request to produce alcohol from wheat, is scheduled to start operations immediately. The company has been using molasses from the West Indies as its raw material for industrial alcohol, but sufficient supplies are no longer available.

Increasing quantities of industrial alcohol produced in Canada are being used by paint companies.

Chile's Iodine Position

Statistics reflect a satisfactory condition in the Chilean iodine industry despite difficulties caused by the war.

The following table shows Chile's production of iodine since July 1939:

[In kilograms]

Period	Production	Shipments	Sales	Stocks
1939–40	970,379	719,937	1,247,007	961,107
1940–41	1,432,145	1,308,661	1,069,229	1,621,300
1941 (July–December)	739,139	448,141	467,621	1,890,500

Imports by Haiti

Haitian trade statistics show 18,673 kilograms of chemical and pharmaceutical products imported during May, valued at $6,489. For the 8 months, October 1941 to May 1942, imports were 471,758 kilograms, with a value of $133,074.

New Products for South Africa

Many new products are being made by South African chemical companies, reports the Department of Commerce and Industries. A group important to the leather industry includes chrome salts, sodium sulfide, lactic acid, and sulfonated oil.

Other new products are chlorine and aluminum sulfate for water purification, casein glues, nitrocellulose finishes, and ceresine disks for food packing.

Spain Encounters Difficulties

Spain's National Syndicate of Chemical Industries has recently issued a report reviewing the Spanish chemical situation in 1941. It was a year of considerable difficulties, and the industry had to deal with shortages of raw materials and fuel and with the obstacles to foreign trade caused by the war, according to the report.

The fertilizer shortage, which was very acute in 1940, was relieved in 1941. Imports of nitrogeneous fertilizers in-

creased from 65,000 tons to 110,000. Imports of Chilean nitrate remained at about the same level—50,000 tons were imported in 1941. Ammonium sulfate imports showed a large increase—from 11,000 tons in 1940 to 35,000 in 1941, with 12,000 tons coming from the United States. About 10,000 tons of synthetic sodium nitrate were imported from France.

The importation of 485,000 tons of Moroccan phosphate considerably improved the phosphatic fertilizer situation over 1940, when only 250,000 tons were imported. Larger imports of phosphate made possible the manufacture of about 1,000,000 tons of superphosphate, an amount sufficient for domestic needs.

Before the civil war the capacity of the soda-ash and caustic-soda industry was adequate for Spain's requirements. The expansion of the paper, rayon, soap substitute, and glass industries has, however, considerably increased the demand for alkalis, and for some time the needs of these industries could not be met. Lack of transportation facilities and of coke, inadequate supplies of graphite electrodes, which are not made in Spain, and—very important—a shortage of steel drums for caustic were adverse factors which hampered production. The output of soda ash fell from 6,300 tons a month at the beginning of 1940 to 3,500 tons in February 1941, and of caustic soda, from 2,800 tons to 1,750. With the help of various cooperative measures taken by the chemical industry, the situation has greatly improved and monthly production of soda ash has been stepped up to 6,400 tons and that of caustic soda to 4,000 tons.

The demand for pitch and tar has been in excess of production and the Ministry of Industry and Commerce has issued regulations to control the trade. Railways receive 70 percent of the Spanish tar production, roads and public works 18 percent, and the chemical industries the remaining 12 percent.

The situation in regard to bichromates is difficult. Spain's only source of supply is from stocks in nonproducing countries, and extremely high prices are being asked for the limited amounts available. Small quantities of arsenates for insecticides are being received from Germany, but at prices up to 200 percent higher than pre-war levels. The manufacture of bichromates is now considered of national importance to Spain.

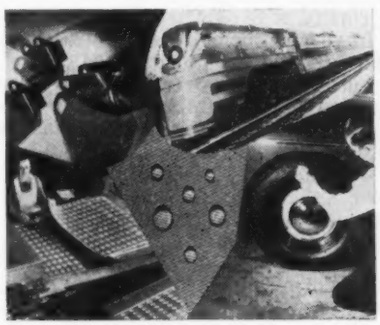
The S. A. Cros is expanding its acid plants at Maliano (Santander) to supply the needs of the rayon industry for purer acid. The new factory, a contact plant, will have an initial capacity of 30 tons of monohydrate daily. With the exception of an electrostatic precipitation unit and certain control equipment, both to be imported from Germany, the new plant will be of all Spanish manufacture.

Post-War Era Offers Business
Its Greatest
OPPORTUNITY

The Cros company is also setting up a new carbon bisulfide plant at its Santander works. This plant, similar to the one already in operation at Barcelona, will consist of high-capacity continuous metal retorts working on sulfur and vegetable carbon. The hydrochloric-acid plant is being expanded by installing a new unit in which a special absorption system developed by the company's technical staff will be used. Extensions will also be made to the carbon tetrachloride, sodium phosphate, and aluminum sulfate plants.

Spain will develop its own bromine products industry—a plant with a daily capacity of 150 to 170 kilograms of bromides is being completed on the eastern coast.

The Cover Picture



Wax Finishes Find New Uses

Our montage cover, this week, presents a group of pictures that serve to illustrate, in rather striking fashion, some of the major new uses for wax finishes today.

At the upper left, one is reminded that rust-inhibiting wax finishes have now come into use to provide protective coatings for metals that have been given black oxidized treatment. Again, famous streamlined railway trains like the one at the upper right now have their sleek exterior surfaces waxed as a protection for the paint and to reduce cleaning costs.

The picture in the center portrays the fact that special wax emulsions are now used to treat clothing and render it water-repellent and stain-resistant. Wax emulsions are mixed with the final rinse in Army laundries.

A famous playing-card manufacturer gives his cards (lower left) a wax bath to lengthen their life and make them easier to handle. The picture at the lower right in the montage serves graphically to stress the fact that new rubber dressings have been formulated from wax emulsions which improve the appearance of rubber goods and, by retarding oxidation, increase their life.

In all these special wax products, an important ingredient is *carnauba wax*, whose production in Brazil is discussed in some detail in the article beginning on page 8.

Coal, Coke, Charcoal, Peat, and Fuel Gases

More Charcoal "Down Under"

Large-scale production of charcoal is being carried out in Australia by Government-owned kilns located at various points in the Commonwealth, says the British press.

Owners of timber mills in New South Wales are being asked to install kilns for burning of residual timber waste, and shire and municipal councils are reported to be responding well to the Government's appeal to increase charcoal output.

Recent difficulties in cutting and delivering firewood are rapidly being overcome.

Coal Production, Canada

Coal output in New Brunswick during 1941 set an all-time record, according to press dispatches. More than 475,000 tons of coal were produced.

The figure is 60 percent greater than the 10-year average coal output from 1931 to 1940 for New Brunswick, although it is only slightly more than output for 1940.

Of the total produced, 475,000 tons came from the Minto-Chipman mining region, and the remaining 301 tons were produced in three small operations in Kent County.

Coal output in the Cape Breton collieries in the Maritimes declined sharply during both May and June, compared with output during preceding months. The chief cause of the declines was the closing of the mines for several days.

May output came to 339,246 tons, a decrease of almost 10 percent from April output. Production for the month was 43,562 tons greater than that of May 1941, but production during the latter month was unusually low.

During June 1942, however, production declined still more, to approximately 80,000 tons less than May ouput. Production for the month was 4,023 tons below that in June 1941.

Closing of the mines is said to be the result of transportation difficulties which have made impossible the marketing of coal which might have been mined. Existing rail and water facilities are said to be inadequate, and stocks have become too large to warrant further output.

Coal output in British Columbia during 1941 showed a gain of 134,500 tons over 1940 production, according to figures released by the Chief Inspector of Mines. Output during 1941 was 1,802,353 long tons.

Of the total produced in the Province, 1,373,325 tons were sold in Canada, 122,687 tons were exported, 125,290 tons were used in coke production, and 25,290 tons were used in power production at the

mines. More than 50 percent of the amount was sold outside British Columbia.

April (1942) output of Vancouver Island came to 76,644 tons, an increase over the 45,808 tons mined during April of the preceding year.

Coke production in Nova Scotia, New Brunswick, and Quebec during the first 4 months of 1942 amounted to 373,264 tons, an increase of about 40,000 tons over production during the same period of 1941. Production in the four western Provinces from January to April amounted to 105,725 tons, an increase of about 16,000 tons.

Colombia to Export Coal?

Colombia sees great possibilities in building an export trade in coal with other South American nations. Officials have been making plans and conducting negotiations concerning coal for several months.

The coal is to be exported from the Cali and Valle areas through the port of Buenaventura.

Negotiations with Argentina are understood to have been completed, with the understanding that it will import 20,000 to 30,000 tons of high-grade Colombian coal per month. Press comments indicate that the monthly imports may be even higher.

Czechoslovak Coal Output

Coal taken from mines in Slovakia during 1941 came to 816,300 tons, as reported from Slovak statistics by the British press. The amount represents a slight gain over production during 1940, when 805,300 tons were taken from the territory.

More Power Alcohol for India

The War Resources Committee has approved a project to increase the production of power alcohol in India, states the British press.

Ireland Studying Peat's Possibilities

Large-scale production of charcoal from peat is being undertaken in Ireland, according to the foreign press. The process employed is the result of work done by the Eire Scientific Research Bureau.

Eire was second ranking world producer of peat in 1937, the last year for which official figures are available. Total production in that year came to 3,646,603 metric tons, according to U. S. Bureau of Mines statistics.

The Scientific Research Bureau is at present investigating the cooking possibilities of peat when used in special stoves. Other projects include the perfecting of a process of obtaining wax from peat.

Sweden, Too, Looks to Peat

Sweden is intensively developing the nation's peat bogs and timber supplies in an effort to compensate for coal shortages. Increasing difficulty is experienced in getting coal and coke supplies from Germany, it is reported.

In view of fuel shortages, peat production in Sweden during 1941 rose to 400,000 tons, compared with a pre-war average of 25,000 tons. Machine peat production alone during 1942 has been forecast at 1,000,000 tons.

At least 1,412,000,000 cubic feet of wood are estimated to have been used as fuel during the year, July 1941 to June 1942, it is estimated.

The National Government is aiding in the securing of machinery for peat cutting, as well as in drainage projects for the bogs.

South Africa's Coal Output Mounts

Coal production for 1941 in the Union of South Africa is believed to have exceeded 1940 production by more than 1,000,000 tons, according to the foreign press. Observers predict that 1942 production will show an additional increase of 1,000,000 tons over the preceding year, although actual figures are not available for either year.

Last available figures for a full year are those for 1940, when South African coal production reached 18,934,005 tons. Production for the first 9 months of 1941 amounted to 14,956,560 tons, and estimates for the complete year stand close to 20,000,000 tons.

Value of the 1940 output at the pit's mouth was £5,325,932, compared with the value of the first 9 months' output of 1941, which is computed at £4,348,636. Production figures since October 1, 1941, are withheld by the South African Government.

Coal bunkered in South African ports has shown a large increase, contrasted with a large decrease in coal exports. The decline in exports is owing to the shipping shortage and to South Africa's loss of markets under impact of the war.

Optimists foresee developments in the coal byproducts market, but indications are that no immediate developments can be expected. Probably not more than 500,000 tons of coal were converted into byproducts during 1941. About 250,000 tons of coke are produced annually, together with 300,000 gallons of tar.

No sulfate of ammonia has been produced since 1917, when the total yield was 2,066 tons. The expansion of the steel industry is expected to take increasing amounts of coke, however.

Farm Workers Get Discarded Service Uniforms

Service uniforms which have outlived their usefulness in heavy duty with the armed forces, will, after being reconditioned and dyed, end their days in the peaceful pursuits of Britain's verdant countryside.

To replace work clothes worn beyond repair, a limited supply of such clothing, dyed green, will be made available to agricultural workers.

These clothes, which consist of a heavy woolen blouse and trousers, are to be sold at a low price—one suit to a customer.

Construction

Brazilian Warehouse

A refrigerated warehouse is to be constructed in Para, Brazil, according to the Brazilian press. At present no such facilities are available.

New Highway for Western Canada

It was recently announced in the Canadian press that the proposed highway, 112 miles long, to connect Prince Rupert with the British Columbia and Trans-Canada highway systems, will be built in eight sections, and that the contracts have been awarded to seven Canadian firms.

The highway will connect with the British Columbia road system at Cedarvale, B. C., and will be joined to the Trans-Canada Highway by existing roads through Hazelton and Prince George, and the Cariboo Highway connecting with the Trans-Canada Highway at Cache Creek.

A gravel surface will cover the complete grade, its thickness depending on the character of the grade. The sections awarded individual contractors range in length from 11 to 18 miles, the longer sections having somewhat lighter work. The contracts call for the completion of the work by March 31, 1943.

Activity in Cuba

Construction activity in Cuba during the first half of 1942 was well maintained, as indicated by cement shipments to all parts of the island.

Demand for cement increased by 6.4 percent, while production declined by 3.25 percent, as compared with the 1941 period.

In Habana and vicinity, usually the center of greatest activity, the number of construction projects was 885, with an estimated value of $8,194,259, as against 1,001 projects and a value of $5,519,382 in the first half of 1942. Oriente Province, next in importance, showed a 25-percent gain in cement sales; other Provinces also showed increased sales.

The increased demand for cement during the second quarter of 1942 is attributed to the desire of contractors to rush to completion all jobs, especially small dwellings, before stocks of materials are exhausted, and to the initiation of several large defense projects which, it is anticipated, will demand increasing amounts as work progresses.

The Cuban Government absorbed 3.68 percent of total shipments of cement during the first 6 months of 1942, as against 3.48 percent in the corresponding period of 1941.

French Hydro Projects

Work is being carried out this summer in France for the increasing utilization of French water power in producing electricity, according to European press reports.

The production of four dams on the upper Rhone is to be raised from 120,000 to 200,000 horsepower in the near future, while on the lower Rhone from Lyon to Mondragon 18 dams already in operation, or planned, will produce 400,000 horsepower, making a total of 600,000 horsepower available on the Rhone alone.

In addition there are numerous dams in the Pyrenees and the Alps, as well as in the highlands of the Massif Central. A total of 15 lake storage dams are in operation or are being constructed.

These increased sources of current production necessitate an expansion of the distributing network, so a number of existing high-tension lines will be extended and several new ones erected. These will carry 150,000 and 220,000 volts, especially for supplying the industrial centers of Paris and northeastern France.

Panama Building Hampered

Shortage of iron and steel and other building materials in Panama continued to retard construction activity during July, and no important new building projects were reported.

Building permits, including additions and repairs, amounted to $226,000 in June 1942, compared with $146,250 in May of this year, and $222,157 in June 1941.

More Roads for Paraguay

The Paraguayan Government has continued its efforts toward the realization of the plan for the construction of roads throughout the country connecting all of the more important towns and villages.

Some progress has been made on all routes, but the more important developments have taken place on the so-called Route No. 2, which is known as the Marshal Estigarribia Highway, under construction since February 1940. This highway will lead from Asuncion to Villarrica, with a branch to Piribebuy.

During 1941, 100 kilometers of roadway and 15 bridges were completed, and other bridges were under construction. A daily average of 3,500 men were employed on the work.

The total length of the planned highway is 185 kilometers, and it is now estimated that with climatic and other conditions remaining favorable the project should be finished toward the end of 1942.

In the city of Asuncion 43 blocks of streets were paved, representing an area of about 35,875 square meters.

Electrical Machinery and Equipment

Australia's Purchases Drop

Australia's imports of several lines of electrical equipment and supplies were less in 1941 than in 1940, the Canadian press states. Electric dynamos imported in 1941 were valued at £506,951, compared with £694,234 in 1940; telegraph and telephone instruments dropped from £616,463 in 1940 to £301,657 in 1941; and imports of insulated cable and wire were valued at £1,032,896 in 1941, compared with £1,536,741 in the preceding year.

German Merger

Allegmeine Electrizitäts Gesellschaft, Berlin, is reported by the British press to have taken over Gesellschaft für Elektrische Unternehmungen. The latter is the oldest and largest electric holding company in Germany and has extensive interests in other countries on the continent, and the merger is considered one of the most important in the German electrical industry in many years.

Essential Oils

Petitgrain in Paraguay

Heavy demand for petitgrain boosted Paraguay's 1941 output to an all-time high. Shipments rose from 164,407 kilograms in 1940 to 199,487 kilograms in 1941. These figures represent production, since no petitgrain is used locally. While Argentina took a small percentage of 1941 production, the bulk of the crop went to the United States.

Until better methods of collection and distillation are inaugurated, the 1941 petitgrain yield may be regarded as the peak.

Europe's Motor Vehicles Mostly Immobilized

Most of Europe's motor vehicles, which before the war totaled 4,300,000 private cars and 1,400,000 commercial vehicles, are now immobilized on account of the lack of fuel, according to the European press. Only essential vehicles are still being operated.

Various types of substitute fuels are being used to replace gasoline. Among them are liquid products made from coal and lignite; liquid fuels from oil shale and asphaltic rocks; power alcohol from farm, forest, and other products; and producer gas from a number of materials.

OEM Defense Photo

Foodstuffs and Allied Products

Cold-Storage, Dehydration, Plants Considered for Tasmania

The establishment of cold-storage and vegetable dehydration plants in Tasmania, Australia, is being considered by the Commonwealth's Departments of Commerce and Agriculture, according to press dispatches. The storage plant would be used at first for vegetables and later for butter and fish.

Coffee, Tea, and Cocoa

Coffee Situation in El Salvador

Coffee exports from El Salvador during July 1942, totaling 107,593 bags, of 60 kilograms, practically quadrupled the 25,750 bags shipped during June, and tripled the July 1941 figure of 33,854.

Exports for the period January to July 1942, inclusive (711,030 bags), increased by 40.73 percent over shipments for the same period in 1941 (505,226 bags).

Total carry-over of stocks on July 31, 1942, was 121,574 bags, compared with 139,564 held over on July 31, 1941.

The size of the 1941–42 crop is estimated at 978,852 bags, compared with only 678,787 produced in 1940–41.

Paraguay's Mate Shipments Drop

Despite efforts to stimulate the popularity of yerba mate abroad, shipments of the tea from Paraguay during 1941 fell to 8,862,550 kilograms, from 10,091,811 kilograms in 1940. Most of the 1941 exports went to Argentina, where the Paraguayan product is blended with the local mate.

Toward the end of 1941 interest in mate suddenly revived, probably in expectation of world tea supplies from the Far East being cut off. Under tests, mate has been found to contain about 1 percent caffeine. While this proportion is not as high as that in tea, it is possible

that 1943 will bring heavy demands for the beverage.

Venezuela's Coffee and Cocoa Exports

Exports of coffee from Venezuela during May and June of 1942 were 62,800 and 92,611 bags (of 60 kilograms each), respectively. These were substantially higher than in the corresponding months of the preceding year, when exports for May were 49,400, and for June, 19,200 bags.

Exports for the first 6 months of 1942 amounted to 352,500 bags, compared with 516,000 bags for the corresponding period of 1941.

Cocoa exports during April 1942 amounted to 1,934,000 kilograms, compared with 1,060,000 in the corresponding month of 1941. Exports of cocoa for the first 4 months of 1942 totaled 4,102,000 kilograms—which is substantially below the 5,155,000 kilograms shipped in the corresponding period of 1941.

Grain and Products

Corn Exports From Brazil

Exports of shelled corn from Brazil for the period January to May 1942 totaled 6,420 metric tons, of which 3,648 tons went to Portugal, 2,575 to Switzerland, 193 to Bolivia, and 4 to other countries. Shipments of corn meal during the same months amounted to 20 metric tons, compared with only 11 tons last year.

Grain-Storage Situation, Canada

The grain-storage situation may not be as serious as at first believed, a recent survey of storage facilities in Canada reveals. It is the opinion of grain officials and the trade that space problems for Canada's estimated grain crop of over 1,000,000,000 bushels will be solved by Christmas.

While licensed elevator capacity can accommodate only about 200,000,000 bushels, utilization of all types of space on farms, such as permanent and portable granaries and snow-fence cribs with straw covers, will take care of about 765,000,000 bushels. Other off-track storages, such as garages, stores, houses, and schools, are expected to absorb some 3,000,000 bushels. Additional space should be provided for about 200,000,000 bushels (although there is likely to be a reduction in this estimate, owing to frost and sawfly damage) and any remaining quantities will doubtless be taken care of by off-track storage and by the construction of more storehouses on farms.

In 1941 the Government paid for storage of wheat on farms, but no decision has yet been announced as to whether this policy will be followed this year or whether any assistance will be given to farmers to build new bins.

Surprises in Britain's Paper Salvage Campaign

England's waste-paper campaign, which is reported to be exceeding all expectations, is resulting in many surprises for the sorting inspectors. While anything might be expected to turn up on the sorting tables, from hand grenades to rare volumes, workers were hardly prepared recently for the neat bundle of paper currency which came to the surface.

Ration books as well as valuable papers are frequently found, and a recent collection contained some 47 copies of Shakespeare's plays, a new copy of the Oxford Dictionary, and several copies of French-English dictionaries.

Authorities have asked housewives and others to use more care in consigning materials to the salvage sacks.

Wheat Situation, Chile

To meet domestic bread requirements, Chile imported 800,000 metric quintals (1 metric quintal equals 220.46 pounds) of Argentine wheat during the first 6 months of 1942. This was probably the largest importation of wheat in Chilean history.

Only 730,173 hectares were sown in wheat in 1941–42, compared with 780,999 hectares planted in 1940–41, and 827,810 in 1939–40. It is estimated that the area being sown in 1942–43 will be from 800,000 to 815,000 hectares.

Low prices prevailing for wheat in comparison with more remunerative crops were partly to blame for the reduced area sown in 1941–42. To remedy this situation, the official minimum price level for wheat was raised progressively from 118 to 122, to 125, and finally to the present 135 paper pesos for 100 kilograms. Certain agricultural interests are now asking for a minimum of at least 150 pesos, pointing out the fact that wheat prices are ranging from 140 to 175 pesos per 100 kilograms.

It is believed by most Chilean wheat men that a better minimum price will result in a greater acreage in 1942–43 than in either 1940–41 or 1941–42.

Because of better yields than last year, the wheat harvest in 1941–42 totaled 7,842,765 metric quintals, compared with 7,834,244 quintals in 1940–41, and 8,596,933 in 1939–40. Official and reliable private informants express the belief that the 1942–43 wheat harvest, conditions being favorable, will probably be about 8,100,000 quintals, since the new minimum price of wheat, together with fertilizer and easier credit facilities made available by the Government, will doubtless stimulate production.

In 1941–42 the rye harvest totaled 53,594 quintals, compared with 57,250 in 1940–41, and 62,999 in 1939–40.

The barley harvest amounted to 703,349 quintals, compared with 752,093 produced in 1940–41, and 731,747 in 1939–40.

The oats harvest in 1941–42 totaled 677,054 quintals, compared with 678,194 in 1940–41, and 849,848 in 1939–40.

Egypt's Wheat Production

Egypt's wheat production in 1942 is tentatively estimated at the satisfactory figure of 8,500,000 ardebs of 150 kilograms each. Wisely distributed, this crop should be adequate for the normal requirements of the country.

Since there was no carry-over from last year, and the 1942 wheat crop was late in coming in, the British Government was called upon to supply Egypt with considerable quantities of wheat in the interim. Extra trains and motor transports in Egypt were pressed into service to carry the grain to the proper milling centers. The emergency has passed, and bread in the cities is now almost entirely composed of wheat of the 1942 Egyptian crop, but it is generally believed there will be no exportable surplus of Egyptian wheat.

Paraguayan Rice

The 1941 rice crop in Paraguay aggregated 2,748,885 kilograms, exceeding the 1940 crop of 2,530,250 kilograms but not even approximating the 1939 output of 4,000,000 kilograms. The 1941 production was absorbed by domestic consumption with the exception of negligible exports of 129 kilograms.

Rice, for all its popularity, takes second place to mandioca as a standard and staple article of food in Paraguay.

Syria's Biscuit Output Cut

Owing to the shortage of tin plate, biscuit manufacturers in Syria and Lebanon are said to be making extensive use of the metal from used gasoline tins for the production of biscuit containers.

Biscuit production in these areas is reported to have been reduced approximately 40 percent from the normal annual output of 400 metric tons and at the same time the quality has been lowered. Prices are said to have advanced 300 percent since the outbreak of the war.

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GUARD IT WITH WAR SAVINGS BONDS

Spices and Related Products

Zanzibar Clove Trade

As a result of the war, the Zanzibar clove industry has lost its Java market which, on the average, took about 82,500 bales (of 140 pounds) a year. This loss, however, will probably be compensated by increased shipments to the United States.

During the first quarter of 1942 Zanzibar produced 6,113,560 pounds of cloves, and Pemba contributed 11,601,044 pounds. Exports to all destinations amounted to 6,695,812 pounds. In terms of standard bales, supplies stood at 126,533 and exports at 47,823.

Supplies of clove stems reached 5,130,398 pounds during the first quarter, of which the clove-oil distillery absorbed 1,991,192 pounds. Clove-oil exports came to 178,398 pounds. The quality of Zanzibar stems, however, was reported to have fallen off slightly, compared with previous high standards.

Sugars and Products

Mexican Sugar Production

Estimated production of refined sugar in Mexico from the 1941–42 harvest is 463,000 short tons, the largest crop ever processed and an increase of 28 percent over the 361,449 short tons produced in 1940–41. In addition it is estimated that about 60,000 tons of native brown sugar were produced.

The area devoted to cane production was at a record high as well. Aside from some need for sugar-mill equipment, no serious difficulties were experienced in handling the crop, and weather conditions were favorable. In general, production of sugar has been stimulated by continued favorable prices and growing sugar consumption.

Estimates of types of sugar produced in 1941–42 follow:

	Short tons
Refined sugar, No. 1 grade	160,000
Refined sugar, No. 2 grade	186,000
Cube sugar	38,000
Brick sugar	79,000
Total	463,000

Stocks of about 49,000 tons of sugar will be on hand December 31, 1942, it is estimated, which is slightly more than the 45,690 tons on hand at the end of last year. Forecasts indicate a 15-percent increase in area devoted to cane production for 1942–43 but only about 5- to 10-percent increase is expected in the production of sugar if average yields are obtained. Domestic consumption is expected to be about 438,000 tons in 1942. Thus no sugar is expected to be available for export.

Sugar Output, Paraguay

Sugar output in Paraguay during 1941 increased to 17,474 short tons, an increase of more than 21 percent over the 13,720 tons produced in 1940.

Iron and Steel

British Empire Iron and Steel Expansion

An estimated capacity of 6,000,000 tons of pig iron and ferro-alloys and 6,500,000 tons of steel ingots and castings is soon to be attained by plants in Canada, India, Australia, and South Africa, combined, according to the British press.

This estimate includes capacity of plants under construction as well as of plants now in operation. In 1937, the record year before the war, the combined output of these countries amounted to 3,800,000 tons of pig iron and 3,600,000 tons of steel. The increased capacity is a result of expansion projects in the major Empire countries started immediately upon the outbreak of the war.

Big Gain in Dominican Imports

Iron and steel structural materials imported by the Dominican Republic in 1940 were valued at $438,801, according to the Canadian press, approximately a 50-percent increase over 1939's total of $270,516, and the highest figure reached by this commodity during the last 5 years.

Lumber and Products

New Plywood Mill in South Australia

Plywood is being manufactured for the first time in South Australia, press dispatches reveal. In spite of a lack of facilities and the necessity of training workers, the new mill now has a steady production of good-quality plywood, with 85 percent of the output reserved for war requirements. The South Australian Woods and Forests Department has given assistance to the company and has supplied from its forests logs of *Pinus radiata*.

A new plywood mill in Tasmania will have an estimated annual output of 12,000,000 square feet and 1,000,000 feet of other material. Production will begin with veneer for apple-case sides, to be made chiefly of myrtle. The factory will use some sassafras and leatherwood and will make tests of other hardwoods readily available.

Paraguay's Lumber Exports Up

Exports of lumber products from Paraguay increased substantially in 1941. As in previous years, Argentina and Uruguay were the principal markets, taking sawn lumber, railway ties, posts, and firewood.

Machinery, Other Than Electrical

Australia's Purchases

The value of Australian imports of motive-power machinery (excluding electric) was £3,879,773 in 1941—46 percent more than 1940's total of £2,649,794, according to the Canadian press. Other machines and machinery imported in 1941 were valued at £5,308,564, and roller bearings and ball bearings were valued at £472,550. Figures for 1940 for these two groups were £4,068,704 and £359,598, respectively.

Canada's Farm Equipment Exports

Canada's exports of farm machinery in April 1942 were valued at $1,212,370, according to the Dominion press, compared with $1,347,420 in April 1941.

In addition to items shown in the following table, 717 cultivators and 173 grain drills were exported but values were not indicated.

	Value
Milking machines	$68,425
Cream separators	182
Harvesters and binders	167,206
Hay rakes	1,028
Mowing machines	56,479
Combines	209,271
Disk harrows	42,766
Drag harrows	10,364
Disk plows	6,497
Moldboard plows	394,920
Threshers	12,016
Farm tools	1,084
Implement attachments	392
Farm implements, unspecified	4,644
Repair parts	195,388

Sales of farm machinery and equipment in British Columbia were approximately 40 percent greater in 1941 than in 1940, according to the Canadian press. In 1941 sales reached $1,009,391, an increase of $287,111 over 1940's total of $722,280.

Northern Ireland Using More Farm Machinery

Since the outbreak of the war, the use of farm machinery has increased greatly in Northern Ireland, press dispatches indicate. The number of tractor plows in operation has increased by more than 2,000; disk harrows by more than 1,300; flax-pullers by 240; binders by more than 600; and tractors by 2,500. The Government's hire-purchase scheme for tractors and agricultural machinery has

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contributed largely to this improvement, approximately £250,000 worth of equipment having been bought by farmers under this arrangement.

Naval Stores, Gums, Waxes, and Resins

Canada's New Resin Company

A new company, Synthetic Resins, Ltd., has begun operations at its plant in Galt, Ontario, and plans the manufacture eventually of a wide range of synthetic resin materials. At present the company is concentrating on the production of waterproofing materials for war purposes.

Other products will replace rubber for many purposes, including wire and cable insulations.

Waxes From Sugarcane in South Africa

To relieve the present acute shortage of waxes in South Africa, consideration has been given to manufacturing the product from sugarcane. Experiments are being conducted to find a practical method of extracting the wax from filter cake, which is said to contain a relatively high proportion of sugarcane wax.

Commercial scale production of glycerin from molasses has already started.

Oils, Fats, and Oilseeds

Brazil's Curua Nuts

One of the lesser known oilseeds of Brazil is the curua nut—fruit of the curua palm which grows in the lower Amazon Valley. Among the centers of growth are the municipal districts of Monte Alegre, Santarem, Alequer, and the area near the mouth of the Xingu River, all in the State of Para. It is reported that the two varieties of this palm tree, *Curua-tinga* and *Curua-piranga*, are found in an area covering at least 1,700,000 to 2,000,000 acres.

The curua palm has not been exploited to any great extent. Only a few hundred tons have been exported, chiefly from Monte Alegre and Santarem. The possibilities are largely undeveloped, but the improvement in the price of babassu kernels has been reflected in increased curua prices, and as a result more interest is being shown in the collection of curua nuts.

The *Curua-tinga* nut contains one kernel which weighs about 5 grams. The fruit of the *Curua-piranga* yields a number of kernels, smaller than the *Curua-tinga* kernel, but equal in size to babassu kernels. The curua kernel contains from 56 to 60 percent of an oil that has characteristics similar to cohune, babassu, and coconut oil.

When ripe the fruits fall to the ground and are usually collected some weeks later when the outside covering has either decomposed or has been consumed by insects or animals. The shell of the nut is very hard and very thick, but, in contrast to the babassu shell, can be broken by the same type of motor-driven machinery that is used for cracking murumuru and other nuts. The machines, said to be of fairly simple construction, are manufactured in Para and can crack several tons of kernels a day.

Should sufficient interest in the exploitation of this resource be aroused, the fact that curua-palm forests are located near rivers should be a distinct advantage, for the nuts gathered by workers could be shipped by boat, thus largely avoiding expensive overland transport.

No estimate of the number of curua trees or of the potential annual yield of nuts has been made, but it is believed that 20,000 to 30,000 tons of nuts, yielding 3,600 to 5,400 tons of kernels, could be harvested if storage, processing, and shipping facilities were afforded.

Oilseed Cultivation in French Morocco

Another attempt to alleviate the fats and oils shortage in French Morocco is seen in a recent law making the cultivation of oilseeds obligatory. The law requires that all non-Moroccan subjects engaged in farming, who cultivate 5 hectares (about 12.3 acres) or more annually, must sow at least 10 percent of their cultivated land to linseed, sunflower seed, castor-beans, colza, sesame, or peanuts. The stipulated area may be reduced by one-fifth of a hectare for each 20 olive trees in production on the land owned.

Cotton, jute, and flax for use in textiles may be substituted for oilseed plants up to one-half of the required 10 percent.

Rumanian Output

Rumanian production of sunflower seed, hempseed, and linseed increased materially in 1941 over 1940, according to statistics published in the Rumanian press. Production of rapeseed and soybeans, however, fell off.

In comparing the following statistics for 1939, 1940, and 1941 (see table), it should be noted that in 1940 Rumania lost much territory; the Provinces of Bessarabia and northern Bucovina were ceded to the Soviet Union, much of Transylvania went to Hungary, and southern Dobrogea to Bulgaria. The 1941 figures likewise cover the reduced area.

[Metric tons]

Oilseed	1939	1940	1941
Sunflower seed	142,400	125,900	168,000
Soybeans	86,100	12,400	10,000
Rapeseed	35,800	14,400	12,400
Hempseed	38,900	18,100	29,700
Linseed	5,700	4,200	15,100

Petroleum and Products

Acute Gas Shortage in Para, Brazil

No gasoline for the operation of private motor vehicles has been sold in the State of Para, Brazil, since July 19. The only cars now in operation are ambulances, official cars of the Governor and chief of police, and busses and other public carriers.

Not even physicians are using their automobiles.

Oil Exploration in Canada's "Maritimes"

Oil exploration in the Lake Ainslie region in the Maritime Provinces will be pushed forward in the near future with funds contributed by both the Provincial and Federal Governments. Seepage has been observed in the region for the last 70 years.

Existing output of gasoline in New Brunswick is only 110,000 gallons per year, but oil-shale deposits in Albert County are being investigated in the hope that a major source can be found.

Prince Edward Island sources are also being investigated by private interests, and drilling operations will probably be started early in 1943. Production from all three sources probably would fill most of the needs of the Maritime Provinces, it is believed.

Cartagena (Spain) Refinery

A new refinery is to be erected at Cartagena, situated in southeastern Spain on the Mediterranean. The plant will use for its raw products oils obtained from bituminous slates near Puertollano. Later the refinery will be used as a coal hydrogenation plant.

Projected by the Instituto Nacional de Industria, Spanish State industrial organization, the plant will be built of machinery a part of which will be purchased in Germany. Technical experts have already gone to Germany to study hydrogenation processes.

Initial capacity of the refinery will be more than 250,000 tons. The plant is so planned that it can be enlarged after the war, with the addition of a cracking plant. The Instituto plans to set up the plant as rapidly as possible, using the

topping installation of the Teneriffe refinery.

Difficulties in obtaining construction materials have slowed to some extent the progress of erecting the new plant.

Railway Equipment

CHILE NEEDS RAILS AND ROLLING STOCK

Construction on Chilean railroads continued during 1941, but completion of lines was delayed because of scarcity of materials.

On the railroad from Antofagasta to Salta, a distance of 179 kilometers, 157 kilometers of roadbed were completed and 93 kilometers of rails were laid in 1941. On the line from Corte Alto to Maullín 76 of the 108 kilometers have now been completed and are ready for operation, but lack the necessary rolling stock.

Grading and other work progressed on the roadbeds of several other railroads during the year but the shortage of rails was felt.

Textiles and Related Products

Cotton and Products

SHIPMENTS FROM SANTOS, BRAZIL

During June Brazil's cotton exports from the port of Santos amounted to 12,742 metric tons. Of this total, 6,375 tons were destined to Spain and 4,422 to Sweden.

Synthetic Fibers

NEW NYLON PLANT, CANADA

Canada's new nylon plant which has been under construction for some time at Kingston, Ontario, has now been placed in operation, according to trade reports.

Tobacco

SITUATION IN PARAGUAY

Of the 9,278,500 kilograms of tobacco produced in Paraguay in 1941, some 2,769,370 were exported. In 1940 and 1939 exports amounted to 2,105,665 and 3,575,003 kilograms, respectively.

Both the bright leaf (for blending and cigarettes) and strong dark leaf (for cigars) are cultivated. Until recently dark leaf was in greater demand but now, with increasing market for bright leaf, the Government is encouraging the growing of the bright type.

Brazil Trains Civilian Pilots

Brazil is training a large reservoir of aviators to fly planes which are being produced in its rapidly growing aircraft industry.

Since the national campaign to popularize flying was instituted 18 months ago by Assis Chateaubriand (publisher of 16 newspapers) 326 aviation clubs have been established, two of which are in Rio de Janeiro. Most have their own field and hangar facilities.

The aviation clubs have a total membership of about 10,000, according to the latest count. Each has a trained instructor, and every member is eligible to become a civilian pilot. About 600 have already completed their course of instruction.

Official OWI Photo

Brazil's "Tree of Life": Greatest Source of Wax

(Continued from p. 10)

the period on his lands, and agrees to share the profits with them—a sort of sharecropping plan.

Methods of Harvesting

The mechanics of the harvest are not complicated. By means of a knife, which is curved like a sickle and attached to a long stick, the worker cuts through the stems of the leaves. As they fall to the ground, the leaves are collected and by careful handling are taken to a central terrace for drying.

In cutting the leaves, care must be taken not to remove those that are too young, as this would slowly kill the tree. On the other hand, leaves should be cut before they attain full maturity, for by that time they contain a relatively small amount of wax. Since the leaves, which at first sprout upright from the "eyes" of the palm, bend outward and downward of their own weight as they mature, the position of the leaves is a reliable guide to cutting. When the leaf hangs downward in the position described by the "sertanejo" as "6 o'clock," very little wax remains.

Drying the Leaves

The burning sun, which in the dry season malevolently bakes the land and withers the vegetation, is nevertheless essential to the secretion of wax in recoverable amounts, and serves the further purpose of drying the cut leaves. Sun-drying takes from 3 to 5 days. As the leaves dry, a flourlike dust is formed that must be safeguarded from the wind, for even a light gust will carry it away. A cement floor, 3 to 4 yards square, surrounded by a wall 2 to 3 feet high, makes a suitable drying terrace; in this way the leaves, while protected from the wind, are exposed to the vertical rays of the sun. Without protection of this nature, it is believed that 20 to 30 percent of the wax is lost.

After the drying process, the leaves are removed with the utmost care to a windproof shed, perhaps 4 to 5 yards long and 3 to 4 yards wide. There the following operations are carried on, preferably at night, when the powder settles more quickly. The door is shut tightly. One worker trenches the leaves over toothlike iron blades fixed upright in a heavy block of wood, the sharp edges of the blades facing away from the worker. This process splits the ribs apart and opens up the webs. Another worker, stem turned toward him, rips the leaf apart and opens it to loosen the wax.

A third worker then bunches 2 to 4 leaves together and beats them across a piece of equipment that looks like a wooden sawhorse. When the dust released by these vigorous operations has settled, it is swept into receptacles. Walls and roof of the shed are conscientiously brushed to retrieve as much dust as possible.

European, Far Eastern, and Other Exchange Rates

NOTE.— *For Latin American Rates See Opposite Page*

COMPILED IN INTERNATIONAL ECONOMICS UNIT

NEW YORK RATES REPORTED BY FEDERAL RESERVE BOARD

Country	Unit quoted	Annual average rate		Monthly average rate		Rate on Aug. 28, 1942
		1939	1940	June 1942	July 1942	
Australia	Pound (free)	*$3.5338	$3.0516	$3.2150	$3.2151	$3.2150
	Pound (official)		3.2280	3.2280	3.2280	3.2280
Canada	Dollar (free)	.9602	.8514	.8996	.8994	.8994
	Dollar (official)		.9091	.9091	.9091	.9091
Hong Kong	Dollar	.2745	.2296	(†)	(†)	(†)
India	Rupee	*.3328	.3016	.3012	1.3012	.3012
New Zealand	Pound	3.5482	3.0638	3.2278	3.2278	3.2278
Straits Settlements	Dollar	*.5174	.4698	(†)	(†)	(†)
Union of South Africa	Pound	4.4017	3.9800	3.9800	3.9800	3.9800
United Kingdom	Pound (free)	4.4354	3.8300	4.0350	4.0350	4.0350
	Pound (official)		4.0350	4.0350	4.0350	4.0350

OFFICIAL RATES IN FOREIGN COUNTRIES

[New York rates not currently available]

Country	Official rate	Equivalent in United States dollars of unit quoted	Annual average rate [1]	
			1938	1939
Afghanistan	4 Afghanis=1 rupee	$0.0753		
Belgian Congo	44.25 Congolese francs=$1.00	.0226		
Belgium	1 belga=RM 0.4000	[2].1600	$0.1689	$0.1685
Bulgaria	1 lev=RM 0.0305	[2].0122	*.0124	[3]*.0121
China (Shanghai)	1 yuan=$0.0531	[4].0531	*.2136	*.1188
China—Manchuria	1 M. yuan=1 yen	.2344	*.2845	.2596
Czechoslovakia:				
Bohemia-Moravia	1 koruna=RM 0.10	[2].0400	*.0347	[5]*.0343
Slovakia	1 Slovak crown=RM 0.0860	[2].0344	*.0348	*.0343
Denmark	4.79 kroner=$1.00	.2088	.2183	.2035
Egypt	£E0.24072=$1.00	4.1542	[3]5.0130	[6]4.5463
Finland	49.35 markkaa=$1.00	.0203	.0216	.0199
France:				
Occupied area	1 franc=RM 0.0500	[2].0200	.0288	.0251
Unoccupied area	43.90 francs=$1.00	.0228	.0288	.0251
French Indochina	1 piaster=$1.2269	.2269	[7].2880	[7].2510
Germany	RM 2.50=$1.00	.4000	*.4006	*.4002
Greece	1 drachma=RM 0.1.0167	[2].0067	.0080	.0082
Hungary	5.13 pango=$1.00	.1949	.1973	.1924
Iceland	6.505 kroner=$1.00	.1537		
Iran	35 rials=$1.00	.0286		
Iraq	1 dinar=£1 sterling	4.0350	[6]4.8894	[6]4.4354
Italy	19 lire=$1.00	.0526	.0526	.0520
Japan	1 yen=$0.2344	.2344	.2845	.2596
Netherlands	1.8838 guilders=$1.00	.5308	.5501	.5334
Netherlands Indies	1.8925 guilders=$1.00	.5284	.5501	[6].5334
Newfoundland	$1.10 Newfoundland=$1.00	.9091	[3].9942	.9602
Norway	4.375 kroner=$1.00	.2286	.2457	.2327
Palestine	£P1=£1 sterling	4.0350	[6]4.8894	[6]4.4354
Poland (general governorship)	1 zloty=RM 0.5000	[2].2000	.1886	[3].1884
Portugal	24.55 escudos to the dollar (checks)	.0409	.0433	.0404
	15 escudos to the dollar (currency)	.0667		
Rumania	191.30 lei=$1.00	.0052	*.0073	[8]*.0071
Spain	10.95 pesetas=$1.00	.0913	*.0560	*.0999
Sweden	4.20 kroner=$1.00 [10]	.2381	.2399	.2380
Switzerland	4.31 francs=$1.00	.2320	.2253	.2268
Syria	2.195 pounds=$1.00	.4556	[7].5760	[7].5020
Thailand (Siam)	11 bahts=£1 sterling	.3659	.4445	.4032
Turkey	£T1=$0.75	.7500	.8011	.8024
U. S. S. R.	5.30 rubles=$1.00 [11]	.1887		
Yugoslavia:				
Croatia	1 kuna=RM 0.0500	[2].0200	*.0231	[8]*.0277
Serbia	1 dinar=RM 0.0500	[2].0200	*.0231	[8]*.0227

*Nominal. †Not available.

[1] Averages are in dollars per unit of foreign currency and are based on daily quotations of noon buying rates for cable transfers in New York City as reported by the Federal Reserve Board.

[2] Based on German official rate for United States dollar.

[3] Average for first 8 months only.

[4] Rate set Aug. 18, 1941, by Chinese Stabilization Board.

[5] Average for first 3 months only.

[6] Based on average for pound sterling.

[7] Based on average for French franc.

[8] Average for Netherlands guilder.

[9] Average for January-August and November-December.

[10] Official selling rate: the official cable rate is 4.18 kroner=$1, and the air transfer rate is 4.15 kroner=$1.

[11] For foreign-trade valuation purposes only.

Obtaining the Wax

Two primary classes of wax are obtained from the carnauba, the class being determined by the type of leaf. "Palha" or straw wax is extracted from the palha, or large, broomy, pendant leaf, the outside fan edge of which measures from 1½ to 2½ feet; "olho" or eye wax is obtained from the olho, or smaller, yellow, upright leaf, which measures about a foot, and is on a stalk growing from one of the "eyes" of the palm. To retain their identity, these two classes of leaf are processed separately.

Commercial grades of carnauba are obtained by melting the wax in pots over a fire, then straining it through cloth or burlap and the remaining fibers of the leaves, and permitting it to harden. Formerly, the powdered wax was usually melted at the place where it was extracted, but now it is often shipped in bags to the coast.

When the palha grade, which constitutes 70 percent of the output, is melted without water, "gordurosa" ("waxy") wax is produced. The color ranges from dark yellow to almost black. By melting with the addition of water, "arenosa" ("chalky") wax is produced, varying in color from a dull gray to a dark green, containing a larger percentage of moisture, and bringing a lower price on the market.

The olho-type powder is melted without water and yields the prime grades of carnauba wax; flor fina is commercially unimportant, since it represents scarcely 1 percent of the total; yellow No. 1, or "amarella primeira," the most desirable fine-quality wax; yellow No. 2, or "mediana clara," almost as useful as yellow No. 1, though having a slight slate tinge. All grades of carnauba wax are hard and brittle.

After melting, the wax is poured into an appropriate receptacle to harden, and forms a cake. The residue, containing some wax, settles to the bottom. Part of the wax in the residue is recovered by further cooking, but it is of inferior grade.

Cuttings and Yields

Depending on the length of the dry season, two, three, or more cuttings of leaves may be made. To obtain the maximum amount of wax, it has been determined that cuttings should be at least 60 days apart; and to maintain a steady yield from year to year, not more than two or three cuttings are recommended.

Each cutting yields from 8 to 12 leaves per tree, and from each leaf 4 to 7 grams of wax are derived. It is estimated that to produce 1 arroba (15 kilograms, or about 33 pounds) of wax, 2,000 to 3,800 leaves are necessary, according to the size of the leaf and the time and location of the harvest.

Producing Trees Numerous

No official survey of the number of carnauba trees in Brazil has even been made, and unofficial estimates are vague. "Millions of trees," for example, are said to exist in Maranhao. Reports for the

other producing States are little clearer, and show extreme variations. One report gives 11,000,000 as the number of cultivated trees in Piauhy.

In recent years large numbers of selected young trees from agricultural experiment stations have been set out in accessible areas, and in a few years should add substantially to the output. Although the producing stands of carnauba are referred to as "plantations," and are apparently privately owned, the usual connotations of the word, associating it with painstaking clearing, planting, and cultivation, involving large expenditures of money and labor, and years of waiting, are not applicable to the growth of the carnauba palm. Nature's prodigality, alone, is responsible for the vast majority of carnauba stands. Even with new plantings, it is said that little care is necessary after the first year.

A rough approximation of the number of trees whose leaves are cut can be calculated by dividing the total weight of wax produced by the average weight of wax said to be obtained from each tree. Year after year at least 80 percent, often more, of the wax produced is exported. A trifling amount is now used in the producing States for making candles. The rest goes to industries in southern Brazil. In 1941, reports show that 11,765,697 kilograms of carnauba wax were exported from Brazil. Total production figures are estimated at about 12,000,000 kilograms. Estimates of average production per tree per year run as high as 150 grams. Using this figure, which may be too high, would give 80,000,000 producing trees.

A smaller divisor, of course, would give an even larger quotient. This figure of 80,000,000 estimates *producing* trees only—in other words, trees that are old enough to yield recoverable wax, and sufficiently accessible to be worked. It should be noted that normally the carnauba tree yields wax 7 years after planting but does not reach full production until the tenth year.

Extraction Processes

Increased production is promised not only by recent large plantings, but by the introduction of more scientific operations. Rather primitive extractive methods have persisted for many years, and admittedly their inefficiency has wasted a good percentage of the wax in each leaf. However, it is doubtful that the farmer or proprietor owning a few thousand palms could have borne the expense of special machinery had it been available, for to him carnauba wax is just a side line and, except in times of drought, is not his main cash crop.

Only in the last few years have modern extraction methods made their bow. In Ceara a factory has been established which uses machinery imported from the United States, exempted from duty by the Brazilian Government. The Ministry of Agriculture has aided in the introduction of an extractor, or leaf-beater, invented by a Piauhy industrialist. Simple, cheap, and adapted to small-scale industry, the machine saves labor, and is said to increase by 30 percent the amount of wax extracted from the leaf. Experiments have indicated that, when harvesting is mechanized and the leaves dried in a sheltered place, as much as 15 grams of powder can be extracted from each leaf.

Latin American Exchange Rates

NOTE.—Averages are actual selling rates for sight drafts on New York, in units of foreign currency per dollar, with the following exception: Cuba—United States dollars to the peso. The peso of the Dominican Republic, the Guatemalan quetzal, and the Panamanian balboa are linked to the dollar at 1 to 1; the Haitian gourde is fixed at 5 gourdes to 1 dollar.

Country	United quoted	Type of exchange	Annual average rate		Average rate		Latest available quotation	
			1940	1941	May 1942	June 1942	Rate	Date
Argentina	Paper peso	Official A	3.73	3.73	3.73	3.73	3.73	Aug. 6
		Official B	4.23	4.23	4.23	4.23	4.23	Do.
		Bid		4.88			4.93 / 4.94	Aug. 4
		Free market	4.37	4.24	4.24	4.26	4.20	Aug. 6
Bolivia	Boliviano	Controlled	39.09	43.38	46.46	46.46	46.46	Aug. 17
		Compensation	[1] 53.83	[2] 55.00				([5])
		Curb	56.71	54.02	50.00	51.50	50.00	([5])
Brazil	Milreis	Official [3]	16.500	16.500	16.500	16.500	16.500	July 18
		Free market	19.789	19.717	19.650	19.650	19.650	Do.
		Special free market	20.700	20.678	20.500	20.500	20.500	Do.
		Curb	21.421	20.298	19.757	20.100	20.500	Do.
Chile	Peso	Official	19.37	19.37	19.37	19.37	19.37	Aug. 13
		Export draft	25.00	25.00	25.00	25.00	25.10	Do.
		Curb market	33.04	31.78	30.53	31.14	31.70	Do.
		Free	31.05	31.15	31.15	31.15	31.10	Do.
		Gold exchange	31.05	31.15	31.15	31.15	31.10	Do.
		Mining dollar	[4] 31.13	31.15	31.15	31.15	31.10	Do.
		Agricultural dollar		[2] 31.15	31.15	31.15	31.10	Do.
Colombia	do	Controlled	1.75	1.7545	1.75	1.75	1.75	Aug. 6
		Bank of Republic	1.755	1.755	1.755	1.755	1.755	Do.
		Stabilization Fund	([6])	([6])	([6])	([6])	([6])	
		Curb	1.88	1.86	1.76	1.77	1.79	Do.
Costa Rica	Colon	Uncontrolled	5.70	5.85	5.72	5.62	5.54	Aug. 15
		Controlled	5.62	5.62	5.62	5.62	5.62	Do.
Cuba	Peso	Free	.90	.975	1.00	1.00	1.00	Aug. 8
Equador	Sucre	Central Bank (Official)	[7] 16.42	15.00	14.10	14.10	14.10	Aug. 1
		Central Bank (Free)	[8] 15.44					
		Commercial Bank	[8] 15.73					
Honduras	Lempira	Official	2.04	2.04	2.04	2.04	2.04	Aug. 8
Mexico	Peso	Free	5.40	4.86	4.86	4.86	4.86	Aug. 1
Nicaragua	Cordoba	Official	5.00	5.00	5.00	5.00	5.00	Aug. 15
		Curb	6.36	5.93	5.42	5.35	5.15	Do.
Paraguay	Paper peso	Official	[9] 70.00		333.00	333.00	333.00	Aug. 1
		Free	[9] 75.35	([10])				
Peru	Sol	do	6.17	6.50	6.50	6.50	6.50	Aug. 14
Salvador	Colon	do	2.5	2.5	2.5	2.5	2.5	Aug. 15
Uruguay	Peso	Controlled	1.899	1.899	1.899	1.899	1.899	Do.
		Free	2.66	2.31	1.90	1.90	1.90	Do.
Venezuela	Bolivar	Controlled	3.19	3.26	3.35	3.35	3.35	July 25
		Free	[11] 3.46	[12] 3.76	3.41	3.35	3.35	Do.

[1] Mar. 16–Dec. 31.
[2] Jan. 1–June 20.
[3] Middle of August.
[4] Established on July 13.
[5] Established Mar. 25.
[6] For Class 2 merchandise, 1.795; Class 3, 1.87; Class 4, 1.95.
[7] June–December.
[8] January–May.
[9] Paraguayan pesos to 1 Argentine peso.
[10] Abolished on Feb. 10.
[11] Jan. 1–June 25.
[12] July 24–Dec. 31.

NOTE.—Special rates apply to automotive equipment and agricultural machinery, imported from the United States and Argentina.

Ouricury as Substitute

Ouricury or licuri wax, scraped from the leaves of the licuri palm, found only in Brazil, has, in recent years, been presented as a substitute for carnauba wax. Exports have been small, and the quality has not always been consistent. Market prices run considerably lower than quotations for "arenosa," the cheapest exported grade of carnauba.

The physical and chemical characteristics of ouricury, however, are similar to those of carnauba, and, when production is increased and the quality is regulated by the Government, this wax may prove to be a competitor. It is said that 12 leaves can be obtained from a healthy licuri tree, and that 10 good leaves will yield a kilogram (2.2 pounds) of wax. An estimated 5,000,000 palms grow in the State of Bahia.

It is a curious fact that Brazil has a monopoly not only over carnauba wax, but also over what may prove to be its best substitute.

Export Record

Records of small domestic shipments of carnauba wax go back to 1845, but large exports did not occur until about 1900. Available records from 1915 to 1926 indicate average annual exports of 4,735 metric tons. From year to year, exports were somewhat irregular, ranging between 3,500 and 5,900 tons, except in 1 year, 1919, when they spurted to a total of 6,224 tons. In 1927 and 1931 exports exceeded 7,000 tons, and the average from 1927 through 1935 was 6,738 tons.

In 1936 carnauba-wax shipments made another spurt, and since that time have twice reached 10,000 metric tons, attaining a record of 11,766 tons in 1941, and averaging 9,549 tons for the period. With the continuance of Government interest and the bringing into production of new plantations, future annual shipments in excess of 10,000 metric tons may be expected.

For the last 20 or 30 years, at least, the United States has been by far the largest importer, receiving 48 percent of the total shipments from 1919 to 1935, and 75 percent from 1936 to 1941. In 1940 and 1941 the proportion shipped to the United States was even greater, and took up whatever slack the loss of European markets might have caused.

The United Kingdom usually has been the second largest importer, although Germany formerly competed for the runner-up position, and France, Italy, and the Netherlands have been the other leading markets.

As compared with coffee or cotton, carnauba wax does not loom large in the export statistics of Brazil, but, propelled by recent sharp price increases, the value of carnauba-wax exports jumped from 2.1 percent of the total value of Brazilian exports in 1939 to 4.3 percent in 1941. In the latter year it had risen to sixth place in value among all Brazil's exports. In the State of Ceara, shipments of carnauba account for 20 to 30 percent of all exports.

Leading the Field

Industrial use of carnauba has broadened in late years, and shows no sign of slackening. Despite the lower prices of other vegetable waxes, it has had no trouble leading the field by a wide margin. Ouricury wax is being groomed as a possible contender, but much ground must be covered before carnauba's lead is threatened.

In the meantime, Government supervision and control, recently effected, is expected to increase the quality of carnauba wax; State governments are continuing large-scale plantings and experiments.

Any product must face the possibility that some day science may develop a suitable substitute, or perhaps a superior one, at a competitive price—but, until that possibility materializes, it is difficult to describe the prospects of carnauba wax as anything but bright.

Chile's "White Gold" Stages a Comeback

(Continued from p. 7)

caliche, since only ores containing at least 15 percent nitrate are needed. Miners then blast the caliche, break it up, and sort out the richer pieces in squared piles for measurement and shipment to the refineries which are called "oficinas." The miners are paid per cubic meter of pile.

Under the newer American-developed Guggenheim process, introduced in 1924, and now accounting for 65 percent of Chilean nitrate production, all mining operations are done by machine. The overburden is removed with electric draglines, and electric shovels excavate the caliche, which may contain as low as 7 percent nitrate for the modern refineries.

At the "oficinas," under the older Shanks process, the ore is leached with boiling water for 12 to 15 hours. The sodium nitrate is crystallized out by cooling, while the so-called "mother liquor" is drained off from the crystals, which are about 97 percent pure and contain about 16 percent nitrogen.

By the Guggenheim process, sodium nitrate is dissolved from the crushed ore with lukewarm water in huge open vats. The "mother liquor" is removed by centrifuging, and the crystals are melted in an oil-fired furnace and sprayed into a large cooling chamber, to form small pellets which do not cake during shipment. The resultant product ranges from 98.3 to 98.8 percent pure and contains about 16.2 percent nitrogen. Both types contain small amounts of secondary fertilizer elements such as boron, magnesium, manganese, copper, and zinc, which the Chilean producers claim are beneficial to plant growth.

Before shipment, the finished product is usually stored in the open in huge cone-shaped piles. Eighty percent of the sodium nitrate is exported in bulk, and the remaining 20 percent is shipped in heavy paper-lined jute bags. Although sodium nitrate is readily soluble in water, neither the stockpiles nor the flatcars which haul the nitrate to the coast are covered, because hard rains occur only two or three times in a century.

Rain Makes News

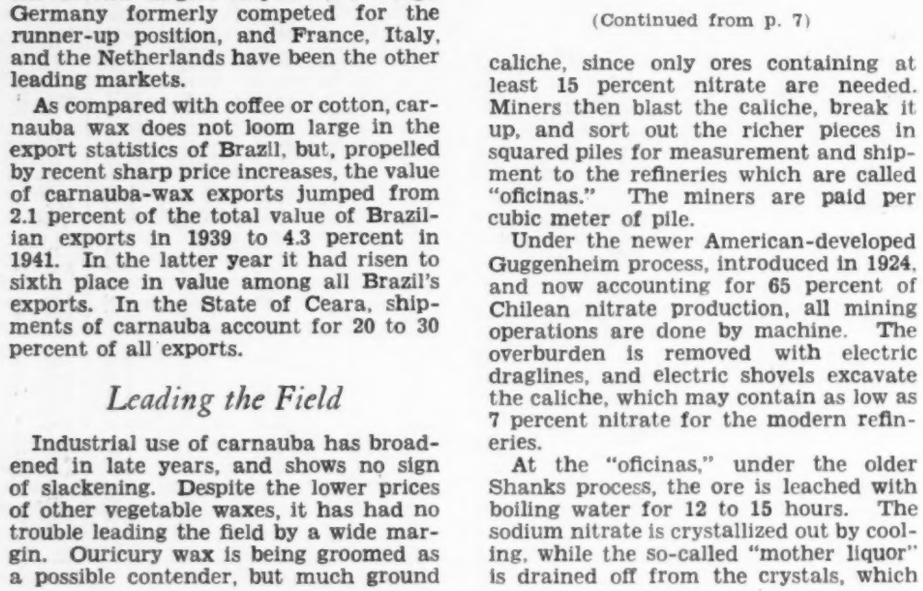
In fact, if it were not for the almost complete absence of rain, the precious salt would have been washed into the ocean long before the white man ever came to South America. The aridity of the nitrate pampas is due to the presence (to the west) of the icy Humboldt current sweeping up the coast from the Antarctic and keeping moisture from reaching land and (to the east) of the high Andes which squeeze out the moisture from the prevailing southeast trade winds.

When it does rain, however, loss are heavy. In July 1940, when torential rains fell many persons were killed, floods wrecked railroads, and damage was especially severe around the port of Tocopilla, from which 50 percent of Chile's nitrates are sent overseas. Witnesses to one of the freak rains half a century ago tell how the barren land suddenly blossomed with the most luxurious growth of all kinds of vegetation. Where, before the rains, not even a cactus had grown, green grass shot up to several feet in height and flourished for a few weeks thereafter.

Ordinarily every drop of water has to be brought in by train or piped from the snow peaks of the Andes, more than 100 miles away. Food must all be brought in from the south of Chile by steamer or railroad. The same is true of fuel, chiefly oil, all of which has to be imported. Transport costs for supplies and machinery as well as for shipping the finished product to world markets are therefore high, and leave but small margin of profit to the producers after high taxes have been paid.

Industry Reorganized

In 1933 when the industry was at its lowest ebb, it was reorganized as a State monopoly. Although private companies do the producing, they have to pay the



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Government for rights to extract ore, and the Government also takes 25 percent of the gross profits of the Chilean Nitrate and Iodine Sales Corporation (Corporación de Ventas de Salitre y Yodo de Chile), which was set up to take charge of all distribution and sales. Because of the close relationship between nitrate sales and the finances of the country, the president of the corporation has also been the Minister of Finance of Chile. Foreign capital is largely British and American, although Spanish, Yugoslav, French, and German capital were represented as late as 1938 in smaller independent companies.

Three large producers—the Lautaro Nitrate Co., Ltd., the Compañía Salitrera Anglo-Chilena, and the Compañía Salitrera de Tarapaca y Antofagasta—account for 90 percent of the country's nitrate output, the remaining 10 percent being supplied by small independent companies. Whereas in 1914 about 135 Shanks plants were in operation, there are now only about 20. The first two companies mentioned above operate the two large Guggenheim plants, Oficina Pedro de Valdivia, costing $32,000,000, and the Oficina Maria Elena, costing $43,000,000 with extensions.

These newer plants operate more efficiently than the Shanks plants, since they are better mechanized, utilize lower-grade ores, and require less fuel and labor. The third concern, which has been operating most of the Shanks plants, has been at various times considering the erection of a third mechanized-type plant. However, the two existing plants alone have a capacity exceeding Chile's total production during the past few years. Chile's output could be easily boosted to more than 2,000,000 tons a year and, theoretically, to 4,000,000 tons if guaranteed export markets, prices, and shipping conditions warranted.

Chilean Exports Hold Up

Chilean exports of sodium nitrate, according to statistics of that country, are shown in table 2.

Since only 1 to 2 percent of the nitrate production is consumed in Chile, the bulk of the output has to be exported or stockpiled. During depression years the stocks in Chile often exceeded the whole year's production or the year's exports. By 1940, however, these stock piles had been largely disposed of. At present the United States Government looks favorably on building up a stock pile as an emergency reserve both in the United States and in Chile.

Sodium nitrate constitutes 20 percent of Chile's total exports, and in recent years has been surpassed in value only by copper as the chief export item. In earlier years sodium nitrate represented over half the value of Chile's total exports. One factor favoring the exports of Chilean nitrates is the fact that, in order to sell to Chile, many countries must buy nitrates so as to supply Chile with the means of purchasing such import. Germany, for example, with the world's largest synthetic-nitrogen production capacity, imported Chilean nitrates largely for this reason.

Export outlets for Chilean nitrate before the present war, in order of importance, were: The United States, Egypt, Spain, Germany, France, the Netherlands, Belgium, Sweden, Denmark, Japan, Italy, Czechoslovakia, the Baltic States, Peru, and Argentina. Of the total Chile-nitrate exports in 1938, the United States took 40 percent, European countries 48 percent, Egypt 6 percent, Hawaii 2 percent, and Japan and other countries the remainder. In the last 2 years Chile has been cut off from practically all European markets except Great Britain, Spain, and Portugal, while Egypt, normally the most important consumer of Chile nitrate next to the United States, has been semiblockaded. Since December 1941 Far Eastern markets have also been largely closed to Chile nitrate shipments.

TABLE 2.—*Chilean Exports of Sodium Nitrate*

[Tons of 2,000 pounds]

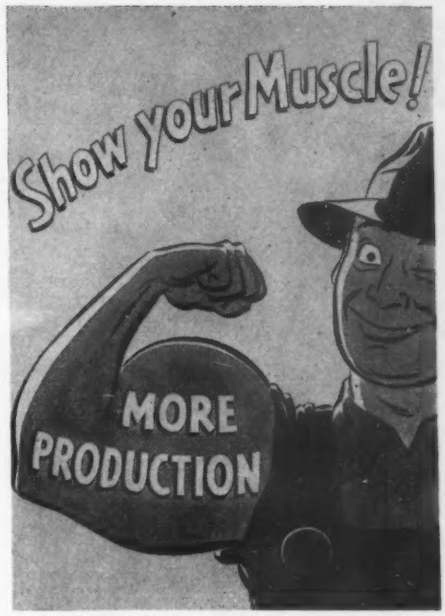
Year	Tons	Year	Tons
1880	246,819	1911	2,699,366
1881	396,409	1912	2,747,376
1882	542,455	1913	3,017,650
1883	649,871	1914	2,035,155
1884	615,908	1915	2,229,700
1885	480,459	1916	3,293,183
1886	495,933	1917	3,059,554
1887	776,077	1918	3,216,933
1888	845,647	1919	1,008,593
1889	1,044,582	1920	3,079,422
1890	1,171,731	1921	1,227,530
1891	869,822	1922	1,556,647
1892	886,937	1923	2,497,399
1893	1,044,901	1924	2,605,721
1894	1,210,496	1925	2,773,843
1895	1,364,943	1926	1,778,332
1896	1,219,964	1927	2,620,370
1897	1,188,301	1928	3,086,268
1898	1,425,930	1929	3,193,751
1899	1,540,371	1930	1,940,731
1900	1,601,985	1931	1,571,448
1901	1,388,211	1932	275,046
1902	1,525,294	1933	777,966
1903	1,606,675	1934	1,401,951
1904	1,653,210	1935	1,386,000
1905	1,818,700	1936	1,557,380
1906	1,903,660	1937	1,768,800
1907	1,825,009	1938	1,730,000
1908	2,260,137	1939	1,557,380
1909	2,352,724	1940[1]	1,566,400
1910	2,574,207	1941[1]	1,397,550

[1] 1940 and 1941, preliminary figures.

Wartime losses in European and Pacific markets have been partly counterbalanced by increased exports to other countries, so that Chile's total nitrate exports have held up fairly well during the war. Although detailed figures are no longer published, approximately one-half of Chile's sodium-nitrate exports in 1941 went to the United States, one-fifth to Europe, and one-tenth to Africa, chiefly to Egypt.

U. S. Interest in "White Gold"

The United States has a twofold intrest in the Chile nitrate industry: First, as a source of imports, and, second, because American engineering skill, capital, equipment, and supplies were used to develop the industry. In 1940 Chile imported $43,000,000 worth of goods from the United States, and in turn shipped to the United States $57,000,000 worth of Chilean products, $12,000,000 of which represented sodium nitrate.



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Because of Chile's unique economic structure, its ability to pay for imports and interest on foreign capital investments is closely related to its ability to export nitrates and copper. Before the outbreak of the war, the United States was Chile's leading trade partner, followed closely by Germany. Since then, German trade has been cut off, and the United States has become increasingly important both as a supplier to Chile and a consumer of Chilean products.

The United States is in the strange position of being the world's leading exporter of synthetic sodium nitrate and, at the same time, the largest importer of Chile's natural sodium nitrate. Table 3 shows United States total imports of sodium nitrate. With the exception of insignificant amounts of synthetic sodium nitrate sometimes formerly imported from Canada and Germany, all of this represents United States imports of natural sodium nitrate from Chile.

TABLE 3.—*United States Imports of Sodium Nitrate*

[Short tons]

Fiscal year	Tons	Calendar year	Tons
1899	125,440	1918	2,066,483
1900	206,080	1919	456,354
1901	228,480	1920	1,480,519
1902	215,040	1921	413,474
1903	282,240	1922	607,560
1904	329,280	1923	998,680
1905	315,840	1924	1,105,001
1906	418,880	1925	1,245,693
1907	383,040	1926	1,024,014
1908	369,600	1927	838,636
1909	395,360	1928	1,156,860
1910	616,000	1929	1,042,113
1911	612,640	1930	636,825
1912	539,840	1931	616,687
1913	639,680	1932	56,482
1914	631,680	1933	137,610
1915	646,240	1934	328,750
1916	1,200,640	1935	437,690
1917	1,413,440	1936	529,015
		1937	701,785
		1938	646,386
		1939	676,917
		1940	744,152

Source: U. S. Department of Commerce.

U. S. Department of Labor

In recent years, imported Chilean nitrate has filled one-fourth to one-third of the nitrogen-fertilizer requirements of the United States. Because of the dependence of agriculture on the importation of nitrates, natural sodium nitrate enters this country duty-free. During the coming crop year, the nitrogen shortage can be partially relieved by increased use of seed-meal fertilizers and organic waste byproducts, and by greater planting of cover crops. But the most direct relief will come from larger imports of Chile nitrate, which is thus coming into its own again.

Nazis Dragooning Dutch for Farm Work in East Europe?

The German authorities in the Netherlands have placed eighteen Netherlands East Indies companies under the control of Nazi Commissars, it was reported from London under recent date. The apparent intention is to use the assets of these companies to further the program of colonizing 3,000,000 Netherlanders in eastern Europe.

Meinoud M. Rost van Tonningen, President of the Netherlands Bank and a chief organizer of the Netherlands East Co., returning from a visit to eastern Europe, denied any connection between the appointment of these Commissars and the colonization project, and endeavored to bring out the "voluntary" character of the eastern settlement program.

The German authorities are reportedly at odds with Dr. Folkert E. Posthuma, head of the Netherlands Commission on agricultural planning, regarding the nature of the projected colonization. Dr. Posthuma has been urging a cohesive colony of Netherlanders, which the Germans are opposing on the ground that a single large colony would foster the maintenance of Dutch national consciousness.

U. S. Export Control and Related Announcements

Developments communicated to the Adviser on Trade Controls up to Tuesday, September 1, 1942:

No. 401—*Current Controls Bulletin No. 43—Allocation of Shipping Space to Other American Republics.*

The Office of Exports has issued Current Controls Bulletin No. 43, as follows:

1. *Applications for Shipping Space.*

A. Consolidated Shipments.—The regulations covering applications for freight space for shipments of 2,240 pounds or over to the Other American Republics (see Current Controls Bulletin No. 33, Announcement No. 380, in FOREIGN COMMERCE WEEKLY for July 11) have been amended to simplify the procedure in the case of consolidated shipments. It is now permissible to group on one form, BEW 138, a number of items destined to one or more ultimate consumers or purchasers from one or more licensees (in the case of general licenses, one or more exporters) so long as the shipment is from a single consignor to one consignee. Accordingly, a freight forwarder may consolidate items received from several exporters and submit a single freight-space application to cover the entire shipment, if only one consignee is to receive the items at the foreign port of discharge. If the licensees (in the case of general license, the exporters) and the known ultimate consumers and purchasers are not identical, a separate sheet in quintuplicate should be attached to the application listing them. Paragraph 808.6 (e) (2) on page 4 of Current Controls Bulletin No. 33 is revised accordingly.

B. When an Application for Freight Space on BEW 138 Is Required—If an individual shipment weighing 2,240 pounds or over is made to a port for export or, if at a port, is offered to a steamship line for export, an application for freight space must be filed with the Board of Economic Warfare. An application should not be submitted for freight space in the case of a shipment weighing less than 2,240 pounds. A certain limited amount of space for such exportation of small shipments is reserved on each vessel to be allotted by the line strictly on the basis of assigned shipping priority ratings. Shippers consolidating small shipments should, to insure space for consolidated lots aggregating more than 2,240 pounds, apply on Form BEW 138 for space covering intended consolidations; otherwise the steamship line may find it difficult, if not impossible, to accept such consolidated shipments in view of the limited space available for shipments not covered by ODT permits. If a shipper has obtained bookings for a number of small shipments each weighing less than 2,240 pounds, he may consolidate the small shipments without applying for freight space on Form BEW 138, even though the aggregate of the shipments so consolidated is 2,240 pounds or over.

C. Use of One Application for All Materials in One Shipment.—All materials in any proposed shipment must be specified in one application for freight space, except in the following cases when separate applications for different materials in the same shipment may be filed:

(1) Where the weight of the materials covered by A and B shipping priority ratings is 2,240 pounds or over, *and* the weight of the materials covered by C and D shipping priority ratings is 2,240 pounds or over, separate applications for the materials with A or B and C or D ratings may be made. In some instances such a separation of applications will be desirable in order that the lower rated cargoes will not delay assignments of space.

(2) If the weight of the material covered by individual licenses is 2,240 pounds or over *and* the weight of the material covered by general licenses is 2,240 pounds or over, separate applications for the materials covered by individual license and general license may be made.

D. Procedure Where Exact Tonnage of a Consolidated Shipment Is not Known in Advance of Consolidation.—Where a shipper or forwarder lacks the information necessary to determine exactly the tonnage of an intended consolidated shipment, he should apply to the permit office of the War Shipping Administration having jurisdiction over the port in question for a special permit (series "99") permitting the component shipments to move into the port for consolidation. Application should give the following information: Points of origin, shipper, commodity, quantity in tons, date when ready for shipment, consignee at port, foreign destination, port of export, point at which storage is desired, and name of warehouse (stating specifically whether private or public). This blanket permit, if issued, will allow the component shipments to come forward from various interior points to the port of exit where the consolidation is to be made and upon arrival there, when aggregate tonnage is known, an application for freight space should be filed with the Board of Economic Warfare.

11. *Interpretations of Application Blank (BEW 138).*

In answering question 12, exporters must state the gross weight of each commodity described. This information may be supplied by attaching copies of export declarations.

Under question 19, exporters' preferences as to ports will be considered, but the applicant should be prepared to ship from any port in the United States.

Question number 16 refers to applicant's own reference number.

III. Shipments from Canada.

When shipments originate in Canada and are to be made from a United States port, applications for freight space should be made to the Canadian Shipping Priorities Committee, West Block, Ottawa, Canada. Such an application should be made on the Canadian form by the Canadian exporter. When merchandise that originated in Canada is now in the United States awaiting transshipment, the American forwarder shall make application on the Canadian form to the Canadian Shipping Priorities Committee. In both cases, applicants will be advised by the Canadian Shipping Priorities Committee when their applications have been approved and certified to the War Shipping Administration for the assignment of freight space. Such advice will be conveyed by the return of a copy of the application stamped to that effect. Applicants will receive notice of tentative freight booking and the Office of Defense Transportation Unit Permit Number permitting shipment to port of exit through the Canadian Transport Controller, Montreal, Canada.

IV. Notification to Applicants of Tentative Freight Booking and ODT Unit Permit Number.

Notice of freight booking and Office of Defense Transportation Unit Permit Number permitting shipment to port of exit, or if al-

ready at port of exit to shipside, will be contained in the same document. This will be forwarded to the person designated in the application by the *steamship operator* who will have received the document from the permit office of the War Shipping Administration, or alternatively, forwarded by War Shipping Administration permit office to the person designated in the application if the shipment is permitted to port of exit in advance of specific ship booking. The document so forwarded will be a copy of the application for freight space with the unit permit number stamped thereon.

If shipment is to be made to port or to shipside by rail (unless originating by rail in Canada), the shipper must present the permit to the nearest permit office of the Association of American Railroads, so that they can lodge advice with rail agent at origin point before the merchandise may be moved by rail to the port of exit. If shipment is to be moved to shipside by other than rail, shipper must present this document to the carrier before shipment can be transported by other than rail to port, or to shipside if originating locally.

When a shipper has filed an application for freight space for known tonnage but originating in more than one interior point, the following procedure will apply. The copy of the application for freight space, stamped with the ODT Unit Permit Number, will be presented to the local representative of the Association of American Railroads, where separate certificates referring to the ODT Unit Permit Number will be issued for each shipment from a separate interior point. These certificates will be valid to permit shipment to the port of exit from each interior point.

V. Acknowledgment Cards.

An acknowledgment card in three parts is now available at the Office of Exports which should be filled out and attached to every application for freight space. One of these cards, giving the name, address, and reference number of the applicant, is for the use of the Office of Exports. The other two cards, self-addressed by the applicant, will be used in advising him of the Serial Number assigned to his application, and of the disposition of his application. Where the Office of Exports is able to approve the application promptly the acknowledgment of receipt and a notice of approval will be included on the same card. Where the Office of Exports is unable to approve the application at the time it is submitted and desires to hold the application for action when additional space becomes available, a card will be used to acknowledge receipt of the application and a second card will be used for the notice of approval.

It should be noted that after approval by the Board of Economic Warfare, the application is sent to the War Shipping Administration for allocation of space, and notice of this allocation will come to the applicant from the *steamship operator*, or the War Shipping Administration.

These acknowledgment cards may be obtained from: The Office of Exports, Board of Economic Warfare, Washington, D. C.; the Office of Exports, Board of Economic Warfare, 500 Fifth Avenue, New York City; field offices of the Department of Commerce.

VI. Serial Numbers.

Applications for freight space will be assigned serial numbers by the Board of Economic Warfare. In order to differentiate such applications from applications for export licenses, the serial numbers assigned to freight space applications will bear the prefix "F." Applicants are requested to refer to the serial numbers of their freight space applications in all correspondence respecting such applications.

VII. Applications for Freight Space in the Case of Shipments Covered by General License "GUS."

Effective immediately, applications for ocean-freight space to the other American republics for shipments weighing 2,240 pounds or over covered by "GUS" licenses will be considered by the Office of Exports.

It is suggested that for shipments involving materials for Army projects, or Army sponsored projects, the shipper communicate with the Chief of Transportation, War Department, Washington, requesting a QMR release. In such cases no clearance with the Office of Exports is necessary.

No. 402—*Current Controls Bulletin No. 44.*

The Office of Exports has issued Current Controls Bulletin No. 44 covering the following items:

1. *Rubber Allocations—Certificates of Necessity.*

The restrictions on exports of rubber and rubber manufactures are modified as follows:

a. Allocations of rubber among the various other American Republics have been established, and it will henceforth be necessary for exporters of rubber and rubber products to obtain Certificates of Necessity from the appropriate agencies of the other American Republics. Until September 30, 1942, however, the Board of Economic Warfare will continue to issue licenses, despite the absence of Certificates of Necessity, but only in the most unusual cases, where extreme hardship would result from rejection of the license application. General information regarding the Certificate of Necessity and allocation program and the agencies selected to issue Certificates of Necessity are set forth in the Comprehensive Export Control Schedule.

b. The commodities subject to the rubber allocations are as follows:

Crude rubber (Schedule F No. 2001).
Reclaimed rubber (Schedule B No. 2011).
Scrap rubber (Schedule B Nos. 2012.05 and 2012.98).
Synthetic rubber (Schedule B No. 2099.3).
Rubber manufactures, whether such manufactures contain crude, reclaimed, or synthetic rubber (Schedule B Nos. 2014 to 2095.2, 2098, and 2099.9*).

c. Shipments of rubber hose, tubing, belts, and belting in the form of aircraft replacement parts are not considered as shipments of rubber. Such articles are treated as aircraft parts under the appropriate Schedule B number. Rubber manufactures in the form of component parts of a finished article (such as rubber washers in a pump, or a rubber fan belt in an automobile) are not included in the rubber restrictions, but are considered with the finished article under the appropriate Schedule B number for that article. This applies also where complete machines are shipped in a knocked-down or unassembled condition.

d. The commodities referred to in paragraph "b" are added to the List of Allocated Materials, as revised by paragraph "II, c" of Current Controls Bulletin No. 42 (Announcement No. 400 in FOREIGN COMMERCE WEEKLY for August 22). The Provisions of War Production Board General Export Order M-148, however, are not applicable to rubber and rubber manufactures.

II. Coal Tar Colors, Dyes, Stains, and Color Lakes.

On and after September 15, 1942, all applicants for licenses to export coal-tar colors, dyes, stains, and color lakes (Schedule B No. 8059), are required in answering question 14 on the application (a) to indicate the color index number or, if none, specify the basic organic raw material included in the dye, and (b) to classify the compounds according to the table shown below, stating the quantity of each class:

1. Acetate.
2. Acid.
3. Azoic.
4. Basic.
5. Direct.
6. Oil and spirit soluble.
7. Mordant and chrome.
8. Sulfur.
9. Vat—Anthraquinone:
   Indigo.
   Other vats.
10. Organic pigments.

III. Original Issuance of Licenses for Periods Exceeding 6 Months.

It is recognized that the manufacture of certain commodities, such as equipment built to order, sometimes requires more than the customary 6-month period available after export license is issued. In all instances where a longer period is required to prepare the material covered in the application, the applicant should state the minimum amount of time required in answer to question 25 or on an attached memorandum executed in triplicate. If the Office of Exports feels that the facts justify the request, the license will be issued for the period requested and the expiration date will be stamped on the license.

IV. Shipments Valued at $25 or Less—General Exports Order M-148.

Certain commodities, export of which is allocated to the other American Republics under War Production Board General Exports Order M-148, may be shipped under general license where, in a single shipment, the value of such a commodity does not exceed $25. If an exporter experiences difficulty in obtaining such material under existing priority ratings and wishes to obtain same under the provisions of Order M-148, it will be necessary to file an application for individual license on form BEW-119. This license, when issued, will have affixed thereto an allocation stamp specifying a date for the delivery of the material by the supplier, and thereby will become a mandatory order on the supplier to furnish the material specified on the license.

V. Medicinals and Pharmaceuticals—General License Provisions Amended.

a. Section D, paragraph a (p. 76), of Comprehensive Export Control Schedule No. 8 is amended to include the following list of items (whether contained in a preparation or not) as exceptions to the $25 general license to K countries:

Acetophenetiden.
Adalin.
Aperitol.
Atophan.
Bromural.
Ephedrine and salts.
Hexamethylenetetramine and compounds.
Ichthyol.
Kava-kava.
Medinal.
Methylene blue.
Novalgin.
Novatophan.
Peppermint, essential oil of.
Phenobarbital.
Podophyllum.
Prominal.
Protargol.
Rivanol.
Salipyrine.
Tannigen.
Thyroid.
Yatren (Loretin).

b. Section E, paragraph b (p. 77), of Comprehensive Export Control Schedule No. 8 is amended to include the folowing list of items (whether contained in a preparation or not) as exceptions to the $100 general license to K countries:

Adrenalin.
Alcatrao (medicinal tar).
Alsol (aluminum acetotartrate).
Aristol (thymol iodide).
Bismuth and bismuth compounds, including bismuth subgallate.
Boldine.
Calcium gluconate.
Chaulmoogra oil.
Charcoal (vegetable and medicinal).
Cyclosal (methyl-isopropyl-cyclohexenone).
Glycero-phosphates.
Gomenol.
Hemoglobin.
Hormones.
Iodipine.

*Schedule B No. 2099.9—"Other rubber manufactures" includes miscellaneous articles not specifically set forth which contain, either by value or quantity, over 50 percent rubber (whether crude, reclaimed, or synthetic rubber), but not aircraft replacement parts, replacement parts of automobiles and other vehicles, replacement parts for other machinery, or insulated wire or cable.

Pituitary extract.
Vaccine antigonococcus polyvalent.

c. The effective date of these amendments is September 5, 1942. Shipments of the above commodities which were on dock, on lighter, laden aboard the exporting carrier, or in transit to ports of exit pursuant to actual orders for export prior to the effective date of change, may be exported under previous general license provisions.

VI. Changes in General License.

Commodity	Department of Commerce No. (Schedule B unless otherwise indicated)	General license group		Effective date of change
		Old	New	
Petroleum products and tetraethyl lead:				
Other crude oil (including topped crude, long residuum) not conforming to specifications in 5011.03 and 5011.07.	5011.98	P	*C and 17	Sept. 5.
Natural gasoline, conforming to specifications in 5017.07 and 5017.98	5012	P	*C and 17	Do.
Other motor fuel and gasoline from which by commercial distillation there can be separated more than 3 percent of a total fraction having an A. S. T. M. end point of 300° F. which will have, with the addition of 3 cubic centimeters tetraethyl lead per gallon, an octane number by the A. S. T. M. knock-test method of 80 or more.	5017.07	P	*C and 17	Do.
Other motor fuels and gasoline not conforming to specifications in 5016.05, 5016.98, and 5017.07.	5017.98	P	*C and 17	Do.
Lubricating oil:				
Red and pale	5033	P	*C and 17	Do.
Black	5034	P	*C and 17	Do.
Cylinder:				
Bright stocks	5035.1	P	*C and 17	Do.
Steam-refined stocks	5035.2	P	*C and 17	Do.
Insulating or transformer oils	5038	P	*C and 17	Do.
Light lubricating oils in small packages	5039	P	*C and 17	Do.
Lubricating oils, n. e. s.	5040.98	P	*C and 17	Do.
Lubricating greases	5041	P	*C and 17	Do.
Petroleum products, n. e. s.	5059	P	*C and 17	Do.
Pigeons, live	0019	None	1 and 47	At once.
Sulfur:				
Sulfur (crude)	5714	K	C	Sept. 5.
Sulfur (crushed, ground, refined, sublimed, flowers)	5715	K	C	Do.
Clays, n. e. s. (including Fuller'searth)	5369	K	C	Do.
Fruits and preparations: Other fruit preparations	1350	K	C	Do.
Vegetables and preparations:				
Corn, canned	1243	K	C	Do.
Green beans, canned	1249	K	C	Do.
Tomatoes, canned	1246	K	C	Do.
Tomato paste and puree, canned	1247	K	C	Do.
Tomato juice, canned	1248	K	C	Do.

Shipments of the above commodities, which were on dock, on lighter, laden abroad the exporting carrier, or in transit to ports of exit pursuant to actual orders for export prior to the effective date of change, may be exported under the previous general license provisions.

*C—Canada (G–1), Great Britain and Northern Ireland (G–2), Newfoundland (G–47), Greenland (G–61), Iceland (G–62), and U. S. S. R. (G–76); 17—Mexico is included provided shipments are made other than by water.

New Books and Reports

* The following publications, added to the Department's research facilities through the courtesy of the authors and publishers, are listed as a service to businessmen. *Please note:* The Department has no copies of private publications for distribution and cannot be responsible for their content. For private publications, write direct to the publishing agency given in each case.

Articles of Current Interest Appearing in the Department of State Bulletin, August 22, 1942

Copies of this publication, which is issued weekly by the Department of State, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for the price of 10 cents each; subscription price, $2.75 a year. The August 22 issue contains these articles:

CRIMES AGAINST CIVILIAN POPULATIONS IN OCCUPIED COUNTRIES: Statement by the President

SINKING OF FIVE BRAZILIAN VESSELS.

DECLARATION OF WAR BY BRAZIL ON GERMANY AND ITALY.

TRANSFER OF UNITED STATES CITIZENS FROM CANADIAN TO UNITED STATES ARMED FORCES.

ECONOMIC ASSISTANCE TO FRENCH NORTH AFRICA.

RUBBER AGREEMENT WITH BRITISH HONDURAS.

EXCHANGE OF DIPLOMATIC AND CONSULAR PERSONNEL AND OTHER NATIONALS.

BIRTHDAY OF THE PRESIDENT OF THE PHILIPPINES.

MEXICAN EXPORTATION OF SILVER TO THE UNITED STATES.

NOMINATION OF TURKISH FOREIGN MINISTER.

THE ELEVENTH PAN-AMERICAN SANITARY CONFERENCE.

REPRESENTATION OF THE DEPARTMENT OF STATE ON FISHERIES COMMITTEE OF THE WAR PRODUCTION BOARD.

ESTABLISHMENT OF CLAIM BOARD FOR THE FOREIGN SERVICE.

Other Publications

THE HEALTH AND EFFICIENCY OF MUNITION WORKERS. H. M. Vernon, M. D. 1942. 138. pp. Price, $2.50. Study of human element in industry during and since the war of 1914–18, in England. Covers such timely subjects as hours of work; work spells and rest pauses; shift systems; sickness and absenteeism; accidents and injuries; ventilation, heating, and lighting of factories; welfare and labor management. Author stresses health dangers of excessive hours of work and of night work for women. Gives detailed evidence that such night-shifts for women are seldom necessary; that practically as good output can be obtained through slightly modified two-shift system.

Available from: Oxford University Press, 114 Fifth Avenue, New York, N. Y.

Uruguay's Motion-Picture Business

(Continued from p. 11)

The Montevidean public is well educated, sophisticated, and has good taste in the fields of music, theater, and the arts.

Taxation

Motion-picture theaters in Uruguay pay a 6 percent tax on all admissions. Moderate taxes are imposed for lighting and advertising, and in Montevideo all real estate bears a light tax for street cleaning, social security, and the maintenance of schools.

Theaters, Attendance, Prices

There are 155 motion-picture theaters in Uruguay—80 of which are located in the capital, Montevideo. During 1941 one new theater was constructed in Montevideo, and for 1942 two are contemplated. The total seating capacity of these 155 theaters is 77,350, serving a population of 2,479,000 people in the Republic. With the exception of possibly half a dozen small country theaters, all picture houses in Uruguay are wired for the showing of sound motion pictures.

It is estimated that approximately 200,000 admissions are taken in at the box-office weekly in Uruguay. The full seating capacity of the theaters in that country is reached four times a week, two on Saturdays and two on Sundays, as well as on some of the holidays.

Double feature programs are shown as a rule at all theaters except the Metro Theater in Montevideo. The general reaction to double feature bills is unfavorable when they are first runs at the best theaters but very favorable when shown at second-run houses.

The average admission prices at the leading theaters in Montevideo are approximately 45 centesimos for matinees, 80 centesimos for evening performances throughout the week, and 1 peso for

week-end performances. Corresponding prices for second-run theaters are 25 centesimos, 30 centesimos, and 35 centesimos. The peso may be considered about 35 cents in United States currency.

Four principal circuits operate theaters in Uruguay, as follows: Glucksmann, S.A., operating 30 theaters; S. E. N. S. A., 10; Fascioli Hermanos, 4; Oscar Stern, 6. Several other circuits in the country operate 2 theaters each.

Uruguayans have a preference for animated cartoons and for feature films having vivid human interest, especially those involving social problems. A large number of persons go to motion-picture theaters through habit, however, without marked preference.

Projection Equipment

About 20 percent of the projection-room equipment in Uruguay is of United States manufacture and averages about 10 years old.

All of the 80 theaters in Montevideo have two motion-picture projectors, as have about 20 theaters in other towns in the country; approximately 55 theaters in this market operate with but one motion-picture projector. Only three theaters in Uruguay are equipped with air-conditioning equipment.

During the summertime three or four open-air motion-picture theaters operate in Montevideo.

In general, motion pictures lead other types of public entertainment.

Educational Motion Pictures

Considerable progress has been made in the showing of educational films. About four films are shown each year on 35-millimeter stock by the Sección Cinematografía del Ministerio de Instrucción Publica, which has shown about 50 films since its establishment in 1922. About three films are shown per year on 16-millimeter stock by the Sección Cinematografía de Ensenanza Primaria y Normal.

The University of Montevideo is the only educational institution that uses films for instructional purposes.

The institutions mentioned do not maintain film libraries, though small collections have been accumulated by the American Embassy and the British Legation. The Ministry of Public Instruction maintains a library of motion-picture films.

Educational institutions are interested in the showing and development of visual education but for the present are showing only lantern slides.

Sixteen-millimeter projectors are used primarily in private homes; the only 16-millimeter sound equipment available in Uruguay is at the American Embassy.

Uruguay presents a potential market for the sale of motion-picture equipment and films to educational institutions. Inquiry in this regard should be directed to the Ministerio de Instrucción Publica, or to the University of Montevideo, or to the American Embassy.

Trade Mark Applications

Brazil.—The following applications for trade-mark registration were published on the dates indicated in the Official Gazette of Brazil. Opposition must be filed within 60 days from date of publication.

Trade-mark	Class No. and commodity	Date of publication
		1942
Clipper	No. 12—Hardwares and tools of all kind; small metal articles not specified in other classes.	Aug. 6
Tratamiento del Agua Para Usos Industriales Seleco Power.	No. 1—Neutral disincrustants for boilers of high and low pressures, for locomotor boilers, maritime boilers, for motors of internal combustion, for condensers, for automotive machines; products to neutralize the corrosive power of natural and soft water.	Do.
Mabel	No. 41—Sweets	Do.
Normoliver	No. 3—One pharmaceutical product.	Aug. 10
Mario Andrade Braga.		
Delco	No. 1—Acetic acid, carbonic acid, phenic acid, oxalic acid, sodium acetate, sodium and potassium arsenate, acetone, ammonium, bisulfide of sodium, borax, cryolite, pastes and starches for textile industries, animal glues, sodium phosphate and potassium phosphate, glycerins, hypochlorites, lanoline and derivatives, napthalenes, silver nitrate, vegetable oils, smoothing oils, sulfurized oils, olein, ordinary soaps for industries, sodium silicate, sodium sulfide, sodium sulfate, copper sulfate, iron sulfate, stearin, tincal, sulfur paints.	Do.
Monobloco	No. 6—1 steam radiator for industrial purposes.	Do.

Panama.—The following application for the registration of trade-marks was published in the Gaceta Oficial of Panama on the dates specified. Opposition must be made within 90 days of date of publication.

Trade-mark	Commodity	Date of publication
		1942
The word "Fortune" superimposed over 2 wings, representing progress.	Boots, shoes, and slippers of leather.	Aug. 7
Hemo	Vitamin preparation fortified with minerals for malted drinks.	Do.
Maybelline (in various colors, forms and sizes).	Eyebrow pencils, eye shadow, mascara, etc.	Do.
Western Electric.	Electrical apparatus and machinery and their parts and accessories; telephonic transmitters and parts; telephone switchboards; etc.	Do.
San Martin (in various colors and sizes).	Whisky, gin, rum, brandy, and alcoholic cordials.	Do.

Uruguay.—The following applications for trade-mark registration were published in the Diario Oficial of Montevideo, on the dates noted. Opposition must be filed within 30 days from date of publication.

Trade Mark	Product	Date of publication
		1942
Cona	Electric supplies	Aug. 6
C	do	Do.
Good Housekeeping.	Paper, stationery, printing.	Aug. 8
Bufalo	Cigars, cigarettes, tobacco	Aug. 11
Belmont	Groceries, foodstuffs, etc	Aug. 12

Canada's New Gas-Compression Plants

Three new gas-compression plants began operations in Canada in 1941, bringing the total number to 34. Production was valued at $6,300,000, a 28-percent increase over 1940, according to information released by the Dominion Bureau of Statistics.

The greatly increased activity in the metal-working, shipbuilding, aircraft, and construction industries brought a much larger demand for acetylene and oxygen.

Output of acetylene in 1941 was 81,791,000 cubic feet, a 32-percent increase over 1940. Production of oxygen amounted to 360,087,000 cubic feet, 36 percent more than in 1940. Carbon dioxide, ammonia, hydrogen, and nitrous oxide were also made in larger amounts.

Contributors' Column

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Nathan D. Golden.—See issue of December 6, 1941.

William N. Small.—See issue of July 11, 1942.

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